

MONTHLY MONITOR

November 2022

Századvég Konjunktúrakutató Zrt.



SZÁZADVÉG

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1. Summary

IN NOVEMBER, THE MNB DID NOT CHANGE THE BASE RATE AND THE EFFECTIVE INTEREST RATE ALSO REMAINED UNCHANGED

Q3 ECONOMIC OUTPUT WAS 4.1% STRONGER YEAR ON YEAR, BUT THE ECONOMY CONTRACTED BY 0.4% QUARTER ON QUARTER. THIS EXCEEDED ANALYSTS' EXPECTATIONS.

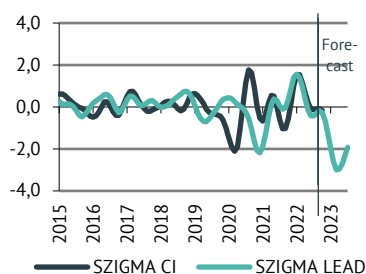
In October, inflation rose to 10.6% on average in the euro area, while it was 11.5% for the European Union as a whole. The greatest challenge in the euro area is the increase in energy prices, which have risen by 41.5% year on year.

Inflation remained highest in the Baltic States, but significant increases were recorded in the Netherlands (16.8%), Poland (16.4%) and the Czech Republic (15.5%). The Hungarian inflation rate (21.9%) is also among the highest in Europe, fuelled by changes to the conditions for discount household utility prices and above-average increases in food prices.

The Hungarian central bank left its base rate unchanged (13%) and did not change its effective interest rate (18%) either.

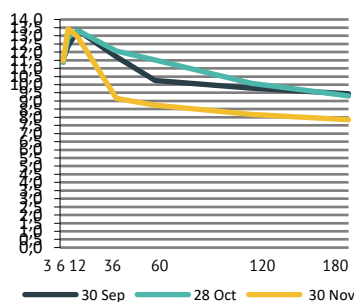
In an environment of high interest rates and high inflation, the public prefers premium Hungarian government bonds with a constant yield above inflation to those that offer a fixed yield.

SIGMA indicators



Source: Századvég

Forint yield curve (%)



Source: Refinitiv

Forecast (30.09.2022)	2022
Change in the GDP (%)	4.5
Inflation (annual average, %)	13.1
Gross wages (year-on-year change, %)	19.7
EUR/HUF (annual average)	390

2. Overview of the economy

2.1. External environment

Average food price increases exceeded the average inflation rate in the euro area in October.

In October, inflation rose to 10.6% on average in the euro area, while it was 11.5% for the European Union as a whole. The greatest challenge in the euro area is the rise in energy prices, which have risen by 41.5% year on year and by a sharp 6.2% month on month. The average increase in food prices also exceeded the average monthly inflation rate, with consumers paying 13.1% more for food overall compared to October last year. This month, the increase in unprocessed food prices (15.5%) exceeded the increase in processed food prices (12.4%), showing that rising energy prices can affect not only processing but also production, and that the reduction in supply caused by the summer drought may have also played a significant role. However, the average inflation rate in the euro area was held back by average increases of 6.1% for non-energy-intensive manufactured goods and 4.3% for services. Inflation remained highest in the Baltic States, but significant increases were recorded in the Netherlands (16.8%), Poland (16.4%) and the Czech Republic (15.5%). The Hungarian inflation rate (21.9%) is also among the highest in Europe, fuelled by changes to the conditions for discount household utility prices and above-average increases in food prices. In contrast, the lowest annual inflation rates in Europe were in France (7.1%), Spain (7.3%) and Finland (8.4%) during the month. The results suggest a slowdown in inflation, which is likely to peak in the coming months. Nevertheless, the European Central Bank continued its rate hike cycle, raising the base rate to 2% on 28 October. Monetary tightening is expected to continue, the only question is how much at the next interest rate meeting. These steps are cooling the economy and could even lead to a recession, but this is the price to pay for bringing inflation down from the current 10% to near the central bank's target of 2% in 18-24 months.

2.2. SZIGMA indicators

The Hungarian economy continued to expand below

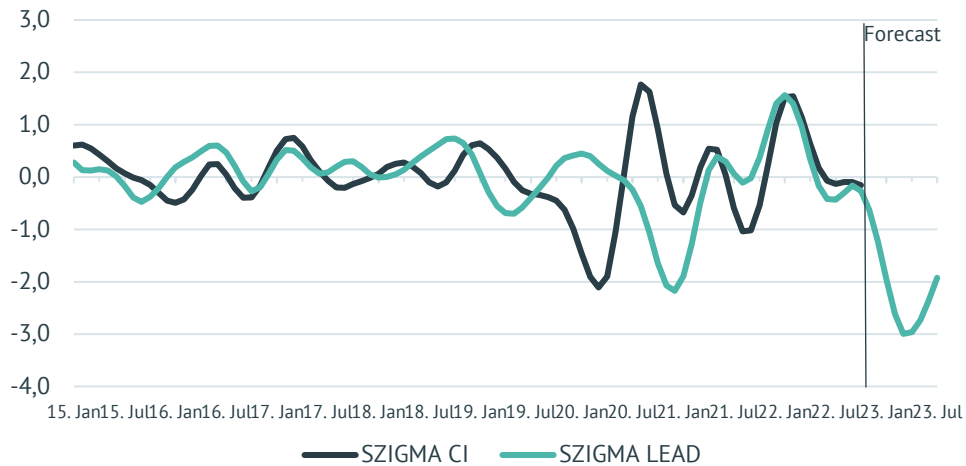
In October 2022, the SZIGMA CI indicator, which provides a picture of the current state of the Hungarian economy, had already been negative since June 2022. This means that the growth of the Hungarian economy has been below the historical trend. The below-trend growth of the Hungarian economy has bottomed out over the past five months, in July 2022 and October 2022. In the two months following the first bottom, the growth rate of the Hungarian economy moved closer to its historical trend. This happened despite the fact that industrial production rose both month on month and year on year, industrial sales rose strongly year on year despite the high base, and new industrial sales orders also rose significantly despite the high base. On a fixed basis, industrial production for September 2022, seasonally and working-day adjusted, rose by 1.6% month on month and by 11.6% year on year. The trend in industrial sales is the same for both exports and domestic sales. While on a monthly basis, sales decreased slightly (below 0.5%) due to the high base, on an annual basis and with a high base, both domestic sales (6.6%) and export sales (16.1%) increased. The growth rate of the Hungarian economy was held back by a decline in the fixed-base stock of contracts of construction firms at the end of the month, which fell by 8.3% year on year on a fixed basis and by 5.6% month on month. Although the stocks of contracts of both groups of constructions (buildings and civil engineering works) at the end of the month decreased, the decrease was most pronounced for buildings. At the same time, the change in the number of new non-residential construction projects was mixed. While it increased by 16.5% on a monthly basis, it decreased by 2.4% on an annual basis.

The October 2022 forecast of the SZIGMA LEAD indicator, which expresses expectations for the Hungarian economy's future performance in the short term, projects that the Hungarian economy will grow at a below-trend rate until the end of the short-term (9-month) forecast horizon. It continues to

indicate that the Hungarian economy's below-trend growth will bottom out in April 2023, and then a slow improvement, or convergence to trend, will start until July 2023. The unfavourable economic environment (inflation, high interest rates, energy crisis, etc.) is expected to persist in 2023, which is in principle not conducive to investment. Public investment has been curbed by postponing investments that have not yet started. At the same time, energy investments by manufacturing businesses are encouraged (e.g. through the Széchenyi Restart Investment Credit Facility, a non-repayable aid supplementing own resources within the total eligible costs covered by an energy efficiency investment loan). Although, on a fixed basis, the stock of contracts of *construction* firms at the end of the month decreased on both an annual and monthly basis, the stock of new contracts signed in the month under review increased on a fixed basis and on a monthly basis (by 33.1%). Both groups of constructions grew, with a 22.9% increase in the number of contracts signed for buildings and a 44.6% increase for civil engineering works in the month under review. It should be noted, however, that this growth rate is well below the September 2019 and September 2020 growth rates. *Thus, we continue to expect a gradual moderation in construction output.* In September 2022, on a fixed basis, *new industrial sales orders* increased significantly on both year on year (19.7%) and month on month (37.2%). Within this, exports grew more. New exports grew by 21.3% year on year and 41.1% month on month. New domestic industrial sales orders grew by 9.2% on an annual basis and by 12.5% on a monthly basis. *Thus, we expect new industrial production and sales to increase.* The Ifo Business Climate index, which measures the business climate in the German economy, improved by 0.2 index points in October 2022 compared with the previous month, but was still 13.6 index points lower than in the same period of the previous year. The stagnation of the confidence index was determined by worries concerning the future in all sectors surveyed (manufacturing, services, trade, construction). The consumer confidence index, as measured by Eurostat, continued to deteriorate in October 2022, standing at -50.4 index points. The index dropped both on a monthly basis (by 2.7 index points) and on an

annual basis (by 38.3 index points). The increasing negative index value could be improved by restoring consumer confidence.

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



Source: Századvég

2.3. The real economy

Hungarian GDP grew by 4.1%.

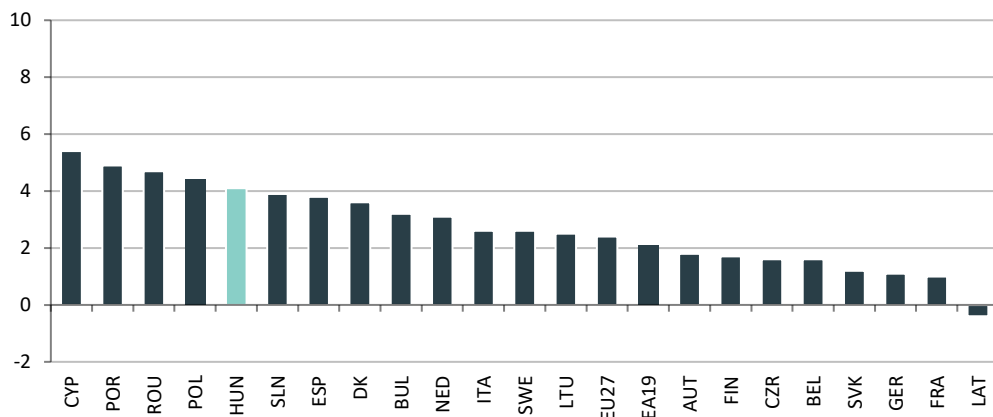
The first estimates of the Hungarian Central Statistical Office (HCSO) show that the annual gross domestic product of the Hungarian economy grew by 4.0% in Q3 2022 on a raw-data basis and by 4.1% based on seasonally and calendar-adjusted data. The expansion thus exceeded the MNB’s expectations, while the current result is roughly in line with analysts’ expectations (4.3%). Economic output shrank by 0.4% in Q3 on a quarter-on-previous-quarter basis according to seasonally and calendar-adjusted and balanced data. The first estimate shows that Hungarian GDP expanded by 6.1% in the first three quarters of 2022 compared with the first nine months of 2021.

Seasonally adjusted data show that the GDP increased in the EU and the euro area, as compared to the same period of the previous year (by 2.4% and 2.1%, respectively). Within the European Union, only Cyprus (5.4%), Portugal (4.9%), Romania (4.7%) and Poland (4.4%) recorded higher growth rates than Hungary, while Latvia (-0.4%), France (1.0%) and Germany (1.1%) were significantly below the growth rate in Hungary. On a quarterly basis,

Cyprus (1.3%) and Romania (1.3%) recorded the highest quarterly growth rates, while several EU countries also saw a decline: In Latvia and Slovenia, economic output declined by 1.7% and 1.4%, respectively.

All sectors of the economy except agriculture actively contributed to the expansion. Growth was mainly driven by the industry and market services sectors. Within industrial production, the main increases were in the production of road vehicles and computer, electronic and optical products; in market services, the strongest sectors were transport, warehousing and professional, scientific, technical and administrative activities. The shrinkage in agricultural output was caused by unprecedented drought damage, irrigation difficulties and resulting substandard crop yields.

FIGURE 2: Q2 2022 GDP GROWTH IN THE EU
(Y/Y, %)



Remark: Seasonally and calendar adjusted indices. Preliminary estimate.

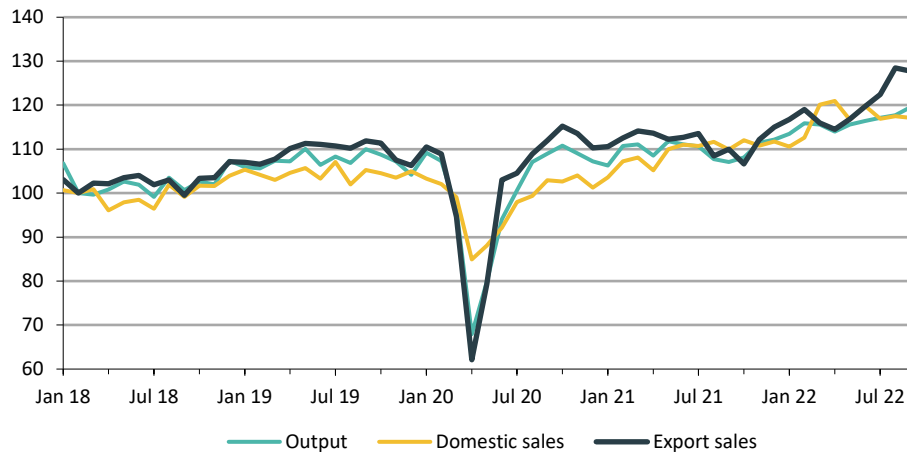
Source: Eurostat

Industrial output grew on both a monthly and annual basis.

In September 2022, industrial output increased by 11.3% in terms of raw data and by 11.6% in terms of working-day adjusted data compared to the same period of the previous year. On a monthly basis, seasonally and working-day adjusted industrial production expanded by 1.6% in September 2022 compared with the previous month. Overall, September 2022 industrial sales were 10.3% higher than a year earlier. This

was driven by a 5.8% increase in domestic sales and a 13.3% rise 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

Individual industrial subsectors contribute to industrial production to varying degrees, with manufacturing making the largest contribution (93.7%), followed by electricity, gas and steam supply and air conditioning (5.8%) and mining and quarrying (0.4%). Compared to the same period of the previous year, manufacturing output grew by 11.5%, energy industry output by 7.4% and mining and quarrying output by 1.0%. In the 11.5% annual growth rate in manufacturing in September 2022, the largest contributor (24.8%) was automotive manufacturing, which increased its output by 31.6% year on year. Three other industries made significant contributions to manufacturing output in September 2022: food, beverages and tobacco, computer, electronic and optical products and electrical equipment manufacturing. Among manufacturing industries, electrical equipment manufacturing recorded the largest year-on-year increase (47.4%). This was followed by automotive manufacturing and the manufacture of computer, electronic and optical products. For the latter, annual output is up 21.5% compared to September 2021. Among manufacturing industries, annual output fell in two. One is metal

production, which represents a medium weight (7.5%percent) in manufacturing output. The other is coke production and refined petroleum products, which has a smaller share (5.5%) of manufacturing's monthly output. In the case of the former, year-on-year shrinkage started in June 2022, accelerating further by September 2022 (with a 10.4% rate of shrinkage). This was partly due to the high base effect from the previous year and partly to the impact of the energy crisis. For coke production and refined petroleum products, a steady year-on-year decline in production started in May 2022. Its September 2022 output was 20.9% lower than in the same period of the previous year.

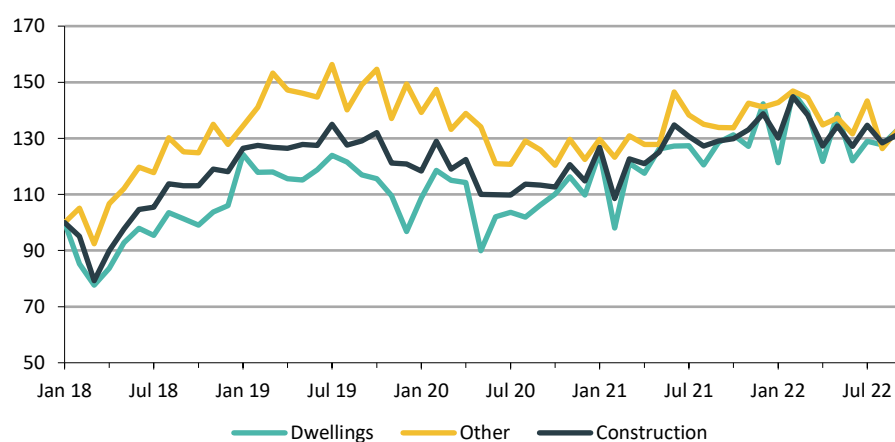
At the end of September 2022, the combined stock of sales orders of manufacturing industries monitored by the HCSO was 20.7% higher than a year earlier, boosted by an increase in export sales orders. Export sales orders were pulled up mainly by growth in automotive manufacturing the manufacture of computers, electronic and optical products. Domestic sales orders remained unchanged compared to the previous year, but despite the high base, the production of computers, electronic and optical products exceeded September 2021 sales orders by more than 24%, and electrical equipment manufacturing by more than 30%. New sales orders increased by 19.7% compared to the same period last year. While new domestic sales orders increased by 9.2%, new export sales orders increased by 21.3% compared to September 2021. Despite the high base, new export sales orders were driven by electrical equipment manufacturing.

New construction sales orders fell year on year.

In September 2022, construction output increased both on a monthly basis (2.2%) and on an annual basis (1.6%). On an annual basis, construction of buildings increased by 3.3% within the main construction categories, but civil engineering works fell by 0.5%. At the end of September 2022, construction sales orders again showed a decrease (by 8.2%). Both construction groups saw a decline in sales orders, with sales orders for the construction of buildings falling by 15.0% and sales orders

for the construction of civil engineering works by 3.6%. The decline in the stock of new construction contracts continued in September 2022, with new construction sales orders falling by only 20.9% year on year in September 2022, after a year-on-year decline of over 50% in the previous month. Although the decline in the stock of new construction contracts is significant, it will remain significant thanks to the high level of construction sales orders and in December 2022 the value of cumulative new contracts from the start of the year will exceed the cumulative value for December 2021. This means that the decline in new construction contracts is currently cooling down an overheated construction industry; for the longer term, however, it is already foreshadowing a slowdown in construction. The downturn had an impact on both construction groups. While the construction of buildings decreased by 5.8%, the construction of civil engineering works decreased by 34.4% compared to the same period last year. The decline in new sales orders was also attributable to the unfavourable economic environment (financing difficulties, inflationary pressures, etc.), the industry's specific problems with raw material supply, the reduction in orders from the public sector and the price increases that have filtered through to the industry. Construction producer prices rose by 26.2% in Q3 2022 compared to the same period of the previous year.

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



Remark: Seasonally and calendar adjusted indices.

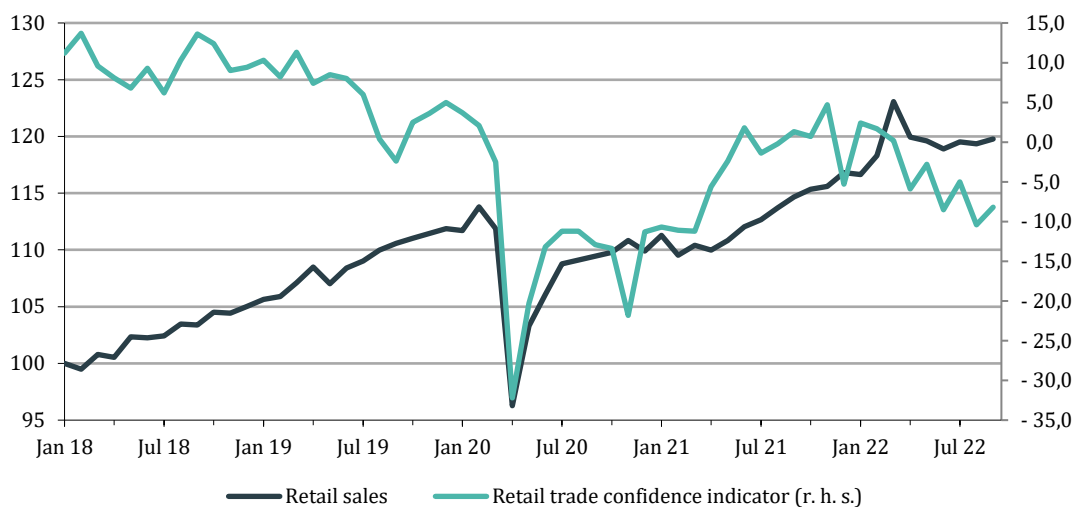
Source: Hungarian Central Statistical Office, Századvég

Retail sales increased by 3.0%.

In September 2022, retail sales increased by 3.0% compared to the same period of the previous year, based on both raw and calendar-adjusted data. Excluding motor vehicle fuel sales, retail sales fell slightly (0.2%) in September. The slowdown in sales growth is partly due to an increase in the base: a year ago, with the coronavirus pandemic subsiding, the widespread availability of the vaccine and thus the lifting of restrictions, consumption increased steadily, resulting in a higher base. In addition, rising energy costs due to misguided sanction policies are putting increasing inflationary pressures on the economy, which, combined with an environment of raising interest rates, is encouraging households to rationalise consumption. Future uncertainty and still minimal upside inflation risks are also holding back current consumption. The slowdown is mainly due to the combined effect of these factors. In September 2022, turnover in specialised and non-specialised food shops decreased by 2.8%, while turnover in non-food shops increased by 2.7%. In fuel retail, calendar-adjusted volume of sales increased by 18.6% compared to September 2021. Petrol station sales growth was supported by the government's introduction of official prices following the coronavirus pandemic, in addition to a significant increase in car use.

On a calendar-adjusted basis, food, beverages and tobacco declined by 1.1%, while foodstuffs fell by 3.3%. Nonfood retail saw a 3.1% drop in sales for books, newspapers and stationery and a 5.9% drop for perfumes. In contrast, sales volumes of second-hand goods and pharmaceuticals and medical products increased by 21.1%, while those of computer and other manufacturing goods rose by 4.1% compared to the same period last year.

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



Remark: Seasonally and calendar adjusted indices.

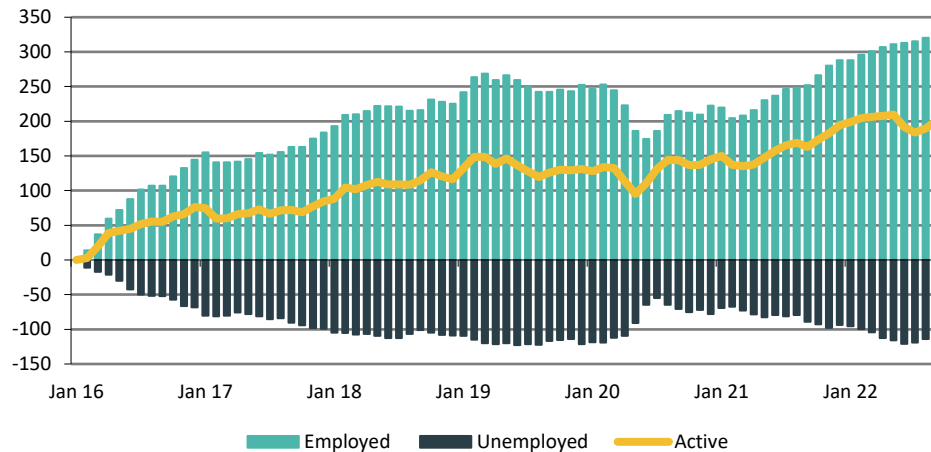
Source: Hungarian Central Statistical Office, Eurostat, Századvég

Unemployment rate at 3.7% in October

Between August and October, the seasonally adjusted number of employees was around 4,710,000, an increase of 500 and 38,000, respectively, from the previous three months and the same period of the previous year. The employment rate was 64.1% in October 2022. The number of the unemployed increased by 3,800 month on month and by 15,800 quarter on quarter, but year on year it is still decreasing (by 6,500), with a share of 3.7% for the period between August and October 2022. The active population increased by 13,300 compared to the previous months, and by 42,400 compared to the same period of the previous year, which means that 66.6% of the 15-74 age group are on the labour market. As activity has increased more than employment, unemployment has risen as a result. In September, the number of employees increased by nearly 2,100 on a seasonally adjusted basis, and by 45,000 compared to the same period of the previous year. The most significant increase in the number of employees was in the competitive sector, with 55,600 more working in enterprises having at least 5 employees compared to 2021, up by more than 3,000 compared to August. The number of non-profit employees rose by a

few hundred over the month, while the number of public sector employees fell by 1,200.

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



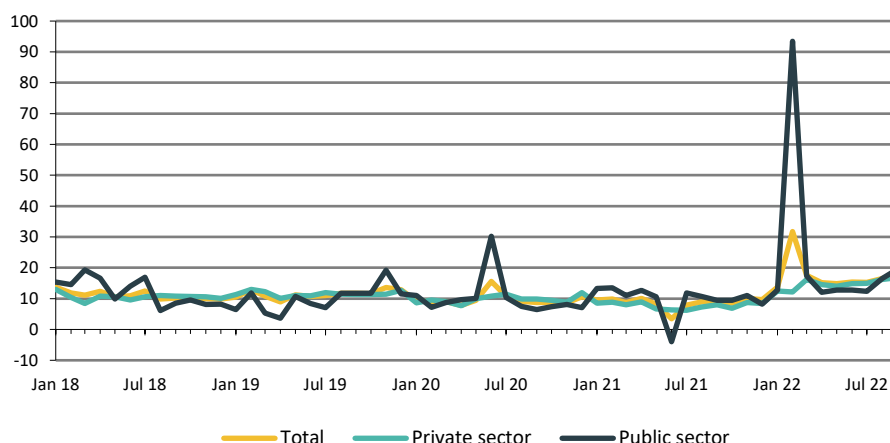
Remark: Seasonally and calendar adjusted indices

Source: Hungarian Central Statistical Office, Századvég

Real wages fell in September.

In September, the average gross monthly wage in the national economy was HUF 504,100, up 17.8% compared to the same period last year. The highest average gross monthly wage was recorded in the competitive sector, at HUF 511,779. The average net monthly wage including benefits was HUF 347,500, an annual increase of 18.4%. The average regular gross monthly wage, excluding bonuses, rewards and one-off allowances, increased by 18.2% in September compared to a year earlier, to an estimated HUF 480,900. Real wages fell by 1.9%, reflecting accelerating inflation, 20.1% in September. The median gross monthly wage was HUF 396,200.

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



Source: Hungarian Central Statistical Office, Századvég

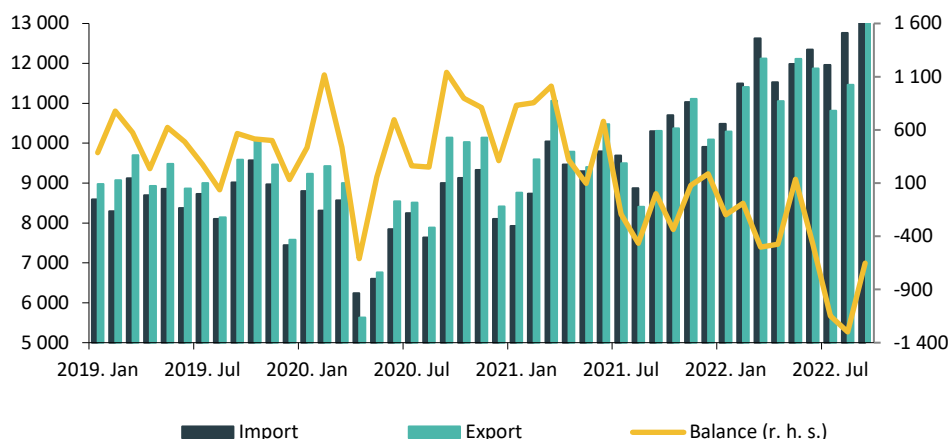
2.4. External balance

In August, exports of goods increased by 37.0% and imports by 43.0% year on year in euro terms. The trade balance deficit was, therefore, EUR 1.6 billion, EUR 863 million less than in the previous year.

In August 2022, the volume of food product imports increased by 13.0%, and food product exports increased by 4.5% year on year. As for energy carriers, imports decreased by 14.0% and exports decreased by 55.0%. As for processed products, imports increased by 11%, and exports increased by 4.7% on a year on year basis. As for machinery and transport equipment, imports increased by 26%, and exports by 41%.

In September 2022, the EUR value of exports was 28.0% higher, while that of imports was 33.0% higher than one year before. Therefore, the trade balance deficit in goods amounted to EUR 652 million, which is EUR 570 million higher than a year earlier.

The saldo of trade balance deteriorated.

FIGURE 8: FOREIGN TRADE BALANCE (EUR MILLION)


Remark: September 2022 figures are from the first estimate.

Source: Hungarian Central Statistical Office, Századvég

2.5. Fiscal outlook

Tax and contribution receipts were 17.1% higher in the first ten months of the year.

At the end of October 2022, the cumulative deficit of the central budgetary subsystem stood at HUF 2,590.4 billion. This was caused by a deficit of HUF 2,683.9 billion in the central budget and HUF 195.7 billion in social security funds, as well as a surplus of HUF 289.2 billion in extra-budgetary funds.

Central government revenues at the end of October were 22.3% higher than in the same period of the previous year, with tax and contribution receipts 17.1% higher.

Receipts from business organisations accounted for 118.4% of the annual target up to October, the highest completion rate and the highest increase (44.2%) of the three main tax revenue groups. Corporate tax revenues, the most significant item among payments by business entities, accounted for 109.9% of the annual target by the end of October, exceeding the balance of the same period last year by HUF 165.9 billion (34.5%). Compared to the same period last year, payments by financial institutions and mining royalties increased significantly, by HUF 138.1 billion and

HUF 150.6 billion, respectively, mainly due to the temporary introduction of special taxes in 2022.

Revenues from consumption-related taxes were 24.2% higher than a year earlier. VAT receipts were HUF 1,318.6 billion (29.2%) higher than the cumulative total for the same period of the previous year. By the end of October, 105.1% of the annual target had been met. The increase in VAT receipts was also driven by higher VAT receipts on domestic, import and tobacco products. Excise tax revenue was HUF 6.9 billion (0.7%) less than between January and October 2021. This was driven by higher revenues from tobacco and spirits and other products, and lower revenues from fuels.

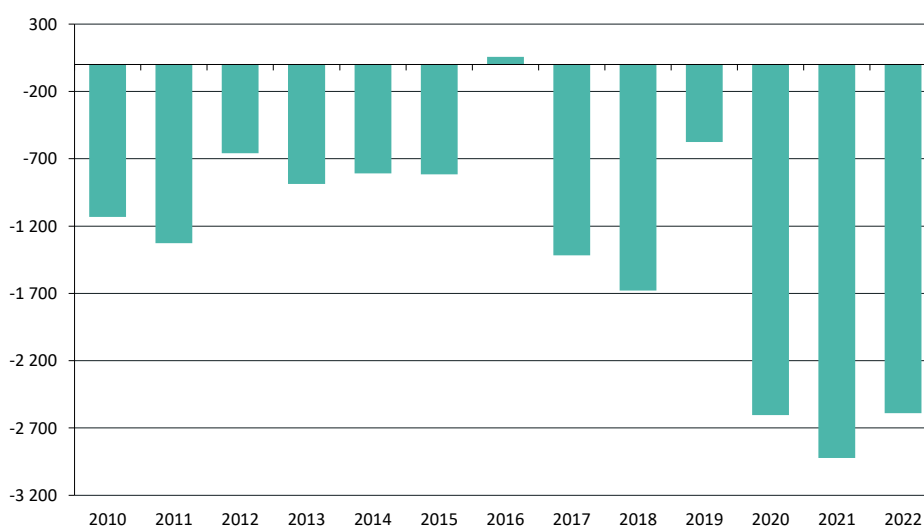
Personal income tax receipts decreased by 8.0% (HUF 188.3 billion) compared to the period between January and October 2021. The decline is driven by a one-off tax rebate for parents with children, while income tax revenues, which increase as wages rise, gradually mitigate the negative impact. Receipts from social contribution tax and social insurance contributions increased by 11.3% (HUF 486 billion) compared to the same period of the previous year. The increase was driven by higher wages, while the reduction in the social contribution tax rate had the opposite effect.

The cumulative revenue of EU programmes reached HUF 968.6 billion by the end of October 2022, which corresponds to 41% of the statutory target. At the same time, the cumulative expenditure of EU programmes closed at HUF 2,469.6 billion, 82.3% of the statutory target.

Among significant expenditure items, expenditure on housing subsidies, chapter-administered professional appropriations as well as interest expenditure were higher than both the year before and the annual target. Expenditure on housing subsidies was HUF 218.7 billion higher than in the same period of the previous year, reaching 130.8% of the annual target. In the first nine months of the year, expenditure on chapter-administered professional appropriations was HUF 656.1 billion higher than in the same period of the previous year, and 123.1% of the annual target.

In the January-October period of 2022, cumulative expenditure on retirement benefits amounted to HUF 3,862.3 billion, up by 18.3% compared to the same period of the previous year. During the same period, the Health Insurance Fund spent HUF 3,055.4 billion, an increase of 18.5% 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 21%.

FIGURE 9: CENTRAL SUBSYSTEM BALANCE, 2010–2022 JANUARY–OCTOBER (HUF BILLION)



Source: Ministry of Finance, Századvég

2.6. Monetary developments

In October, prices increased by 21.1%, on average.

In October 2022, consumer prices increased by 21.1% on average, compared to the same period of the previous year. In addition to the increases in the prices of food (40.0%) and consumer durables (14.9%), the biggest price increases in the past year were for household energy (64.4%), due to changes in the terms for discount household utility prices. Consumer prices rose by 2.0% on average over a month. The seasonally adjusted core inflation rate showed a year-on-year increase of 22.3%.

The more significant contributors to the 40.0% average increase in food prices were the 87.9% increase in egg prices, the 81.4% increase in bread

prices, the 74.7% increase in cheese prices and the 75.4% increase in dairy product prices. The average inflation of 58.6% percent dry pasta and 53.7% for flour also outpaced average food inflation for the month. In contrast, pork prices rose at a below-average rate (25.8%), while sugar (11.8%) and edible oil (4.4%) inflation was also below average. On the cost side, high energy and commodity prices continue to have a strong impact on the inflationary environment, including for food, but their impact is already largely embedded in consumer prices. In contrast, the drought that has hit all of Europe, but Hungary in particular, could lead to a new wave of price rises in the autumn, further pushing up consumer food prices.

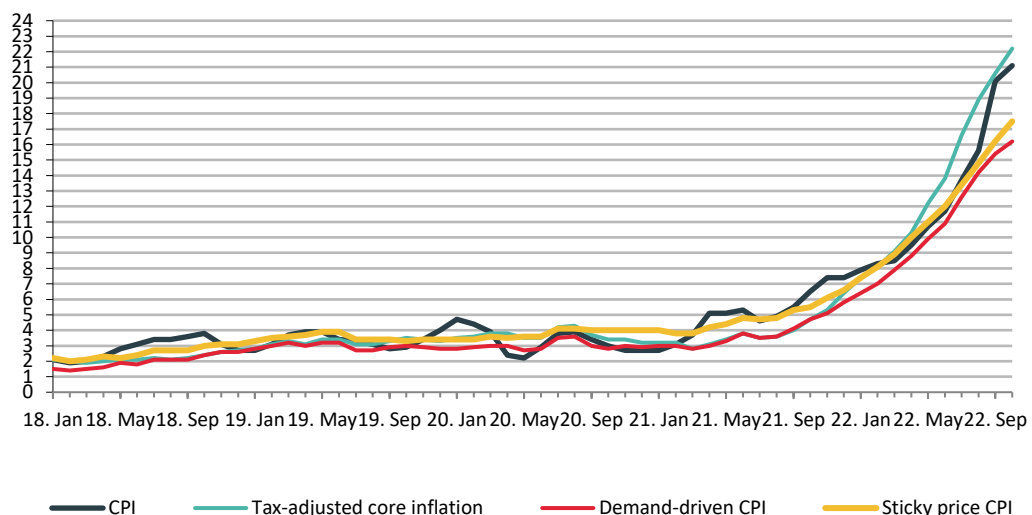
The 22.5% increase in new car prices and the 15.0% increase in used car prices played a particularly important role in the 14.7% average increase in the prices of consumer durables. Room furniture prices also increased at an above-average rate, by 19.1%, while kitchen furniture prices rose by 19.7% compared to the same period last year. Jewellery also saw a significant price increase of 20.1% in on a yearly basis in October. Consumer durables inflation is moderated by a 4.4% increase in the prices of computers, cameras and telephones, and a 2.7% increase in the prices of televisions. For consumer durables, volatile forint exchange rates are among the factors that increase inflation risks, alongside supply chain disruptions and parts shortages.

The average increase in household energy prices was 64.4% in October, compared to the same period of the previous year. Within household energy, the price of piped natural gas increased by 121.0%, electricity by 28.6% and cylinder natural gas by 51.1% 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 HCSO in the billing month. The rise in energy prices contributed roughly 2.5-3% to the increase in inflation in October. This trend is expected to continue until September 2023, when the base effect will take effect.

In October, the price of services rose by an average of 8.3%, with home repair and maintenance up 23.8%, vehicle repair and maintenance up 22.8% and taxi up 21.3%. 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 4.6% decrease in the price of TV subscriptions and a 1.2% decrease in the price of local public transport. Clothing prices increased by 7.6% on average over a year.

Compared to the previous month, the price of firewood increased by 11.3%, the average price of food increased by 4.3% and the average price of household consumables increased by 5.1%. The price of services fell by 0.5% on a monthly basis.

FIGURE 10: INFLATION (ANNUAL CHANGE IN PERCENTAGE)



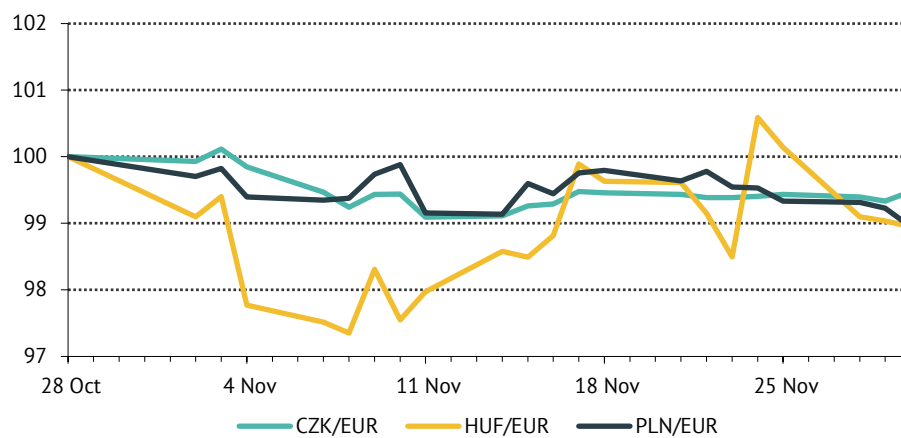
Source: MNB, Századvég

Among the core inflation indicators published by the MNB, in October, the seasonally adjusted core inflation rate was 22.3%, the core inflation rate net of indirect taxes was 22.2%, and the sticky price inflation rate was 17.5%. Core inflation excluding processed food was 16.2% in October 2022.

Both the Czech koruna and the Polish zloty strengthened.

Exchange rates in the region showed a mixed picture in relation to the euro. The foreign currency exchange rates for both the Czech koruna and the Polish zloty have strengthened against the Euro, by 0.53% and 1.05%, respectively. Government bond yields fell: the Czech 10-year government bond yield was 126 basis points lower at 4.76%, while the Polish 10-year yield shrank 175 basis points to 6.63%.

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



Source: Refinitiv, Századvég

The forint strengthened against the euro and 10-year government bond yields increased significantly.

Overall, domestic money and foreign exchange market indicators have shown a markedly more favourable picture in the recent period. The 10-year government bond yield closed at 8.35%, rising 193 basis points. The HUF strengthened by 1.05% against the euro, by 0.56% against the Swiss franc and by 5.05% against the US dollar. This means that at the end of October 2022, one euro was worth 408 forints, one US dollar was worth 394 forints and one Swiss franc was worth 414 forints. Sovereign debt held by foreigners has recently decreased by HUF 331 billion to HUF 5,583 billion.

The central bank did not change its effective interest rate in November

At its November 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. In the long run, a high interest rate environment will change the choice between consumption or saving and could help to suppress inflation, but it could also cause the credit market to dry up. It also makes external speculation on the weakening of the forint more difficult by making it more expensive to hold positions.

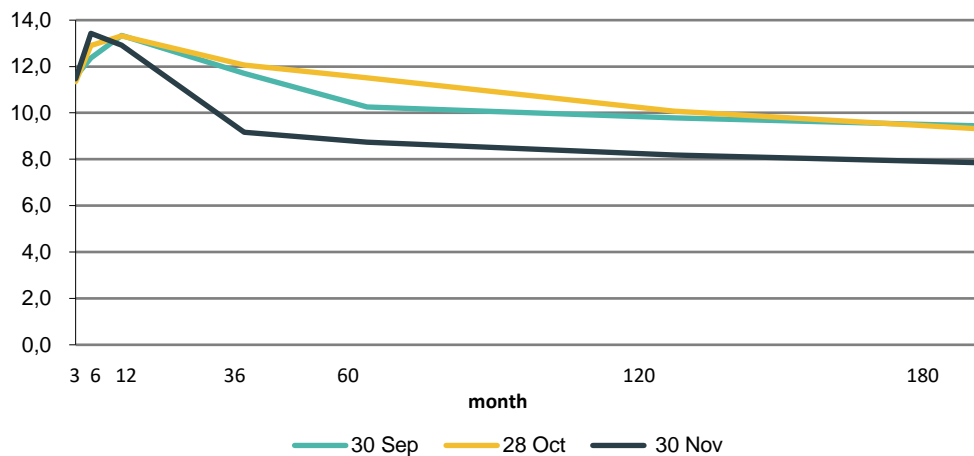
Over the past month in the government bond market, yields for shorter maturities varied between -40 basis points and 53 basis points on the secondary yield curve. This means that the 3-month yield was 11.47%, the 6-month yield was 13.43% and the 1-year yield was 12.92% on 30 November. The 3-year yield fell by 291 basis points to 9.16%. Yields are down 277 basis points over the 5-year horizon, 190 basis points over the 10-year horizon and 146 basis points over the 15-year horizon compared to the previous month. These three yields changed, therefore, to 8.74%, 8.18%, and 7.85%, respectively.

On 30 November 2022, the total value of treasury securities held by retail investors was HUF 2,712.3 billion after a HUF 524.1 billion decrease from the HUF 3,236.4 billion level at the end of October 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 4,080.6 billion (PMÁP as of 31 October: HUF 3,967.6 billion). The GDMA currently maintains the interest rate premium on the 5-year government bond at 1.5 percentage points, while the interest rate premium on the 3-year government bond at 0.75 percentage points.

The share of foreign currency debt in the sovereign debt changed to 24.1% in September (corresponding to an increase of 0.3 percentage points), which is in the range (10–25%) specified in the financing plan for 2022 of the Government Debt Management Agency Ltd.

At the end of November, 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 (%)

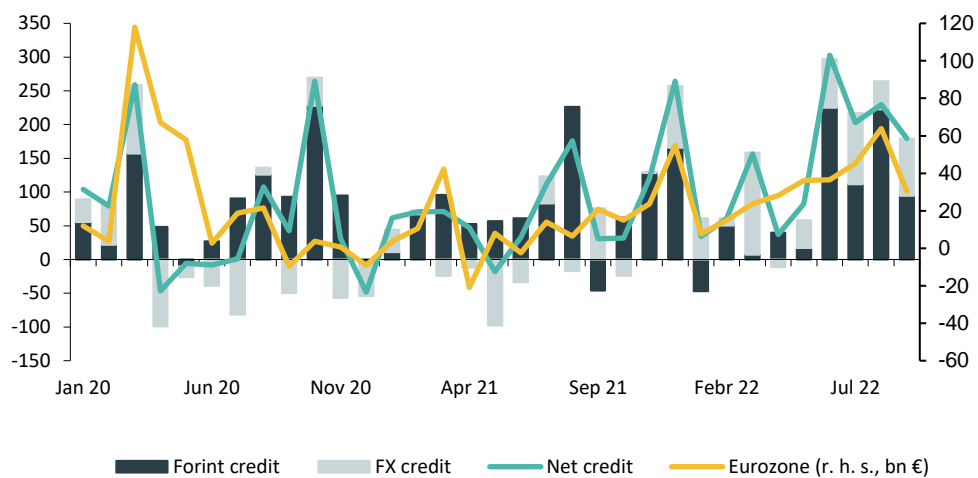


Source: GDMA, Századvég

Corporate holdings of HUF credits have increased

Seasonally adjusted data show that the net borrowing of HUF loans in the business sector was HUF 94.5 billion in September 2022. The net borrowing of foreign currency loans was HUF 84.9 billion in September; in other words, the aggregate value of foreign currency loans held by the business sector, i.e. exchange rate risk exposure, increased. This means that, based on seasonally adjusted data, total net borrowing was HUF 179.5 billion in September. Corporate borrowing in the euro area was EUR 30.23 billion in September 2022.

FIGURE 13: CORPORATE BORROWING (HUF BILLION)



Source: MNB, ECB, Századvég

3. Századvég's forecast¹

TABLE 1: 2022 Q3 FORECAST

	2021	2022				2022	2023				2023
	annual	Q1	Q2	Q3	Q4	annual	Q1	Q2	Q3	Q4	annual
Gross domestic product (volume index)	7.1	8.0	6.5	2.2	1.2	4.5	0.4	0.3	3.5	3.1	1.8
Household final consumption expenditure (volume index)	4.6	13.4	10.3	6.6	1.1	8.0	-10.3	3.3	2.6	2.3	-0.5
Gross fixed capital formation (volume index)	5.9	12.8	6.4	-14.7	-9	-1.1	9.9	-0.7	1.6	1.2	3.0
Export volume index (based on national accounts)	10.3	5.0	7.5	5.1	5.1	5.7	2.4	1.3	4.2	1.8	2.4
Import volume index (based on national accounts)	8.7	8.2	7.3	1.5	3.2	5.1	-1.6	-1.8	2.7	1.0	0.1
Balance of international trade in goods (EUR billion)	1.9	-1.2	-1.0	-1.3	-3.2	-6.7	0.2	0.1	-0.9	-3.1	-3.7
Consumer price index (%)	5.1	8.2	10.6	15.5	18.3	13.1	18.8	16.3	11.4	7.6	13.4
Central bank base interest rate at the end of the period (%)	2.4	4.4	7.8	10.5	13.0	13.0	12.3	11.3	10.3	9.4	9.4
Unemployment rate (%)	4.1	3.7	3.6	3.7	3.9	3.7	4.3	4.5	4.5	4.7	4.5
Change in the average gross monthly wage (%)	8.7	20.9	15.2	19.9	22.8	19.7	14.2	20.3	14.7	10.4	14.9
Current account balance as a percentage of GDP	-3.1					-5.5					-2.9
Net lending as a percentage of the GDP	-0.5					-2.7					-0.7
ESA balance of public finances as a percentage of GDP	-6.8					-4.5					-3.7
Sovereign debt as a percentage of GDP	76.6					73.0					67.6

Source: MNB, Hungarian Central Statistical Office, Századvég's calculation

TABLE 2: QUARTER-ON-QUARTER CHANGE OF OUR FORECAST

	2022			2023		
	06.2022	09.2022	change	06.2022	09.2022	change
Gross domestic product (volume index)	5.4	4.5	-0.9	4.5	1.8	-2.6
Household final consumption expenditure (volume index)	8.5	8.0	-0.5	3.5	-0.5	-4.0
Gross fixed capital formation (volume index)	5.2	-1.1	-6.3	5.4	3.0	-2.4
Export volume index (based on national accounts)	8.0	5.7	-2.3	7.8	2.4	-5.4
Import volume index (based on national accounts)	9.5	5.1	-4.5	6.5	0.1	-6.4
Balance of international trade in goods (EUR billion)	-7.7	-6.7	1.0	-5.6	-3.7	1.9
Consumer price index (%)	10.3	13.1	2.8	7.1	13.4	6.3
Central bank base interest rate at the end of the period (%)	8.00	13.0	5.0	7.10	9.4	2.3
Unemployment rate (%)	3.7	3.7	0.0	3.6	4.5	0.9
Change in the average gross monthly wage (%)	16.5	19.7	3.2	10.1	14.9	4.8
Current account balance as a percentage of GDP	-7.3	-5.5	1.8	-5.5	-2.9	2.6
Net lending as a percentage of the GDP	-4.5	-2.7	1.8	-3.4	-0.7	2.7
Balance of public finances as a percentage of GDP	-4.4	-4.5	-0.1	-3.5	-3.7	-0.2
Sovereign debt as a percentage of GDP	74.5	73.0	-1.5	72.2	67.6	-4.6

Source: Századvég's calculation

¹ Date of preparation: 30 September 2022