MONTHLY MONITOR

December 2022

Századvég Konjunktúrakutató Zrt.

SZÁZADVÉG

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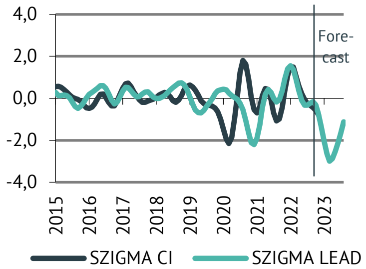
DISCLAIMER

1. Summary

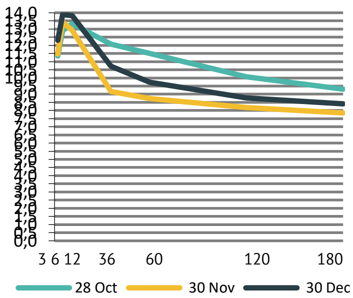
IN DECEMBER, THE MNB DID NOT CHANGE THE BASE RATE AND THE EFFECTIVE INTEREST RATE ALSO REMAINED UNCHANGED

SIGMA indicators



Source: Századvég

Forint yield curve (%)



Source: Refinitiv

Forecast (21.12.2022)	2022
Change in the GDP (%)	5.3
Inflation (annual average, %)	14.4
EUR/HUF (annual average)	390

in November 2022, inflation risks remain high both globally and in Central and Eastern Europe. This is mainly due to falling but still high energy prices, disrupted supply chains and, crucially, the consequences of the increasingly protracted war between Russia and Ukraine.

Inflation in Hungary is currently among the highest in Europe, driven by a weakening forint exchange rate, food inflation and high energy prices, as well as the continuous phasing out of regulated prices, which is prolonging the peak of inflation in Hungary relative to other European countries.

The high inflation environment is forcing central banks to raise interest rates. 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

Hungarian inflation among the highest in Europe in November

In November, average inflation in both the European Union and the euro area fell month on month, pointing to a peaking and slow decline in the inflation rate internationally. Inflation in the EU fell by 0.4 percentage points to 11.1% and in the euro area by 0.5 percentage points to 10.1%, compared with its peak in October.

Inflation in Hungary is currently among the highest in Europe, driven by a weakening forint exchange rate, food inflation and high energy prices, as well as the continuous phasing out of regulated prices, which is prolonging the peak of inflation in Hungary relative to other European countries. Apart from Hungary, the Baltic States continue to have the highest inflation rates: The harmonised index of consumer prices was 21.7% in Latvia and 21.4% in Estonia and Lithuania in November. The lowest rates were in Spain (6.7%), France (7.1%) and Malta (7.2%). Compared with October, on an annual basis, inflation fell in sixteen countries, remained stable in three and rose in eight. On a monthly basis (taking the previous month's value as 100%), the most positive developments were in the Netherlands (-3.9 percentage points) and Malta (-2.6 percentage points). In contrast, in Central and Eastern Europe, inflation rose not only in Hungary (by 1.7 percentage points), but also in the Czech Republic (by 1.3 percentage points), Romania (by 1.2 percentage points), Slovakia (by 1.0 percentage points) and Poland (by 0.7 percentage points) on a monthly basis.

In the euro area, energy prices remained the main factor affecting inflation, contributing 3.82 percentage points to the November inflation rate. After that, food, alcohol and tobacco price increases were the most significant, contributing 2.84 percentage points to the increase in the monthly consumer price index. The contribution to inflation of services

(1.76 percentage points) and non-energy-intensive manufactured goods (1.63 percentage points) was significantly lower over the month.

In the United States, thanks in part to stronger action by the US Federal Reserve than the European Central Bank and in part to the less severe economic impact of the war, inflation peaked at 9.1% in June 2022, and has been on a slow downward trend since, reaching 7.1% in November compared with the same period last year.

2.2 SZIGMA indicators

The Hungarian economy continued to expand below

in November 2022, the SZIGMA CI indicator, which provides a picture of the current state of the Hungarian economy, had already been negative since June 2022 and started to move further away from its previous trend value. This means that Hungarian economic growth has increasingly diverged from its historical trend and the pace of this divergence has increased. The decline over the past six months has bottomed out in the current month, November 2022. This was driven by a sharp fall in industrial production and sales in October 2022. Industrial production and industrial sales fell month on month, while they rose year on year. On a fixed basis, industrial production for October 2022, seasonally and working-day adjusted, fell by 3.6% month on month and increased by 5.2% year on year. For industrial sales on a fixed basis, also seasonally and working-day adjusted, domestic sales fell by 3.1% year on year and by 5.0% month on month. Export sales decreased by 3.3 percentage points month on month due to the high base effect, but increased by 13.0% year on year. The slowdown in the growth rate of the Hungarian economy is indicated by the fact that new domestic industrial sales orders have, on a fixed basis, declined both month on month and year on year. For construction, the month-end stock of contracts of construction firms increased by 1.4% year on year and by 4.6% month on month on a fixed basis. Within this, building groups changed interestingly: month on month, the end-of-month stock of contracts for buildings increased, while that for civil engineering works decreased. Year on year, the reverse was true. The year-on-year and month-on-month increases were different, as while the month-on-month increase was accompanied by a 14.0% increase in the month-end stock of contracts for the construction of buildings, the year-on-year increase for civil engineering works was smaller (2.8%).

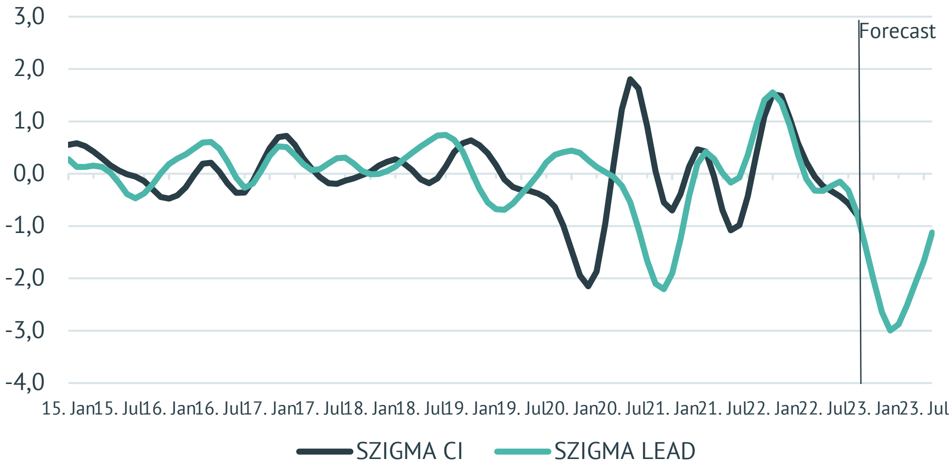
The change in the number of new non-residential building projects fell by 23.6% year on year and by 15.7% month on month, but is still slightly higher than the pre-COVID 2018-2020 period.

The November 2022 estimate 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. The forecast continues to point to a bottoming out of below-trend growth in the Hungarian economy in April 2023, and then a stronger convergence to trend growth until August 2023.

The unfavourable economic environment (inflation, high interest rates, high energy prices, etc.) is expected to persist in 2023, which is not conducive to investment. This will lead to targeted programmes to help businesses. As energy costs have risen several times, the subsidy for utility bills has been changed, but has been maintained up to the average consumption for households. Targeted options for energy costs for businesses, municipalities and public institutions are expected. October 2022 saw the launch of the Energy Subsidy Programme for SMEs in the manufacturing sector, the "Energy Cost and Investment Subsidy Programme for SMEs in the Manufacturing Sector 2022 (supplementary aid for own contribution related to energy cost increases and energy efficiency investments)". Then, the Széchenyi Restart Investment Credit Facilities were extended until the end of the year. In the construction sector, the postponement of non-started public investments will reduce capacities; energy efficiency investments are, however, expected to increase due to energy exposure, which may offset the freed-up construction capacities.

Despite the unfavourable investment environment and the postponement of public investment projects, the month-end stock of contracts of construction firms, on a fixed basis, increased slightly on both an annual and monthly basis, helped by a strong increase in the stock of new contracts signed in the month under review. On a fixed basis, it increased by 56.1% month on month and by 21.4% year on year. The increase was mainly due to contracts for civil engineering works. This growth rate is well above the October 2019 and October 2020 growth rates. **Nevertheless, we continue to expect a gradual moderation in construction output.** In October 2022, the stock of *new industrial sales orders* fell significantly (22.0%) month on month on a fixed basis. This was driven by a 14.5% drop in new industrial domestic sales orders and a 22.6% drop in new industrial export sales orders. On an annual basis, the situation is slightly better, with only the stock of new domestic industrial sales orders falling (by 9.7%); exports, on the other hand, rose by 25.4%. **Thus, new industrial production and sales volumes are expected to moderate, while exports are expected to strengthen.** In November 2022, the Ifo Business Climate Index, which measures the change in business sentiment in the German economy, improved strongly (by 1.9 index points) month on month, but weakened by 10.4 index points year on year, a smaller decline compared with the previous month. The quick improvement in the confidence index is due to easing recession fears. In all sectors surveyed (manufacturing, services, trade, construction), firms were less pessimistic about the future. In November 2022, the consumer confidence index, as measured by Eurostat, improved by 2.1 index points, from -50.4 index points to -48.3 index points. However, the confidence index continued to weaken significantly by 27.9 index points on an annual basis. The 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 4.0%.

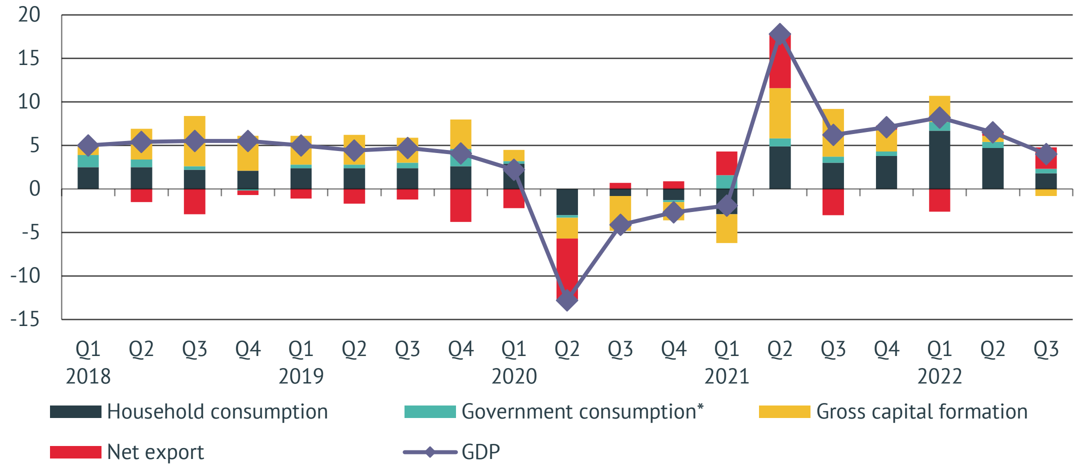
The Hungarian Central Statistical Office's first estimate for Q3 2022 showed a 4.0% increase in gross domestic product compared with a year earlier. Based on the seasonally and calendar-adjusted data of the second estimate, GDP volume was also 4.0% higher year on year, while it was 0.4% lower quarter on quarter.

On the production side, the added value generated by industry rose by 9.6%, including manufacturing by 10.6%, compared to Q3 2021. The added value generated by the construction industry in the quarter in question was 1.8% higher, that of services was 5.6% higher than one year before. Agricultural output fell by 39.3% year on year, mainly as a result of the severe drought. Agriculture moderated GDP growth by 1.8 percentage points, while services contributed 3.4 percentage points and industry 1.7 percentage points. Construction is roughly stagnating (up 0.1 percentage points).

In terms of consumption, household final consumption expenditure decreased by 4.1%, the volume of community consumption fell by 0.5% relative to Q3 2021. Gross fixed capital formation increased by 4.1% compared to the same period of the previous year.

In Q3 2022, the volume of exports was 14.1% higher than in the same period of the previous year, while the volume of imports was 10.6% higher. Hence, the foreign trade balance increased GDP growth by 2.5 percentage points. Within exports, exports of services rose by 16.4% and exports of goods by 13.7% on an annual basis. Imports of services increased by 18.0% and imports of goods by 9.4% compared to the same period last year.

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



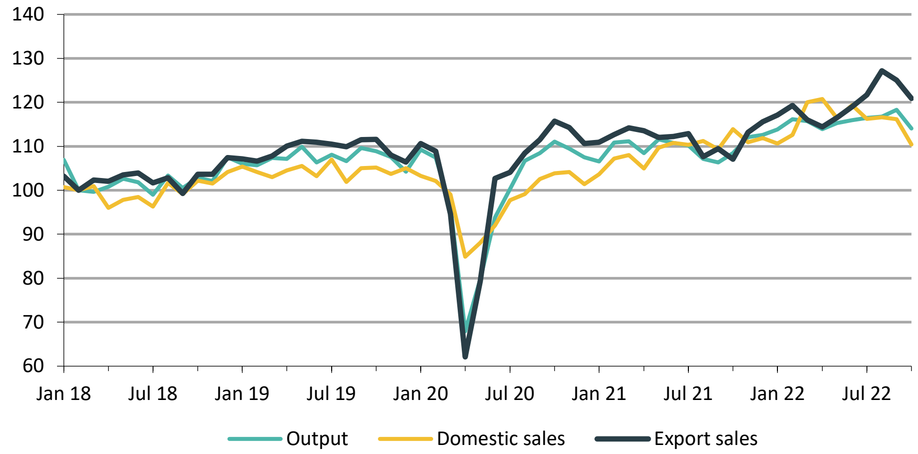
**Including social benefits in kind.*

Source: HCSO

Industrial output grew on both a monthly and annual basis.

Industrial production expanded both month on month and year on year in October 2022. Compared to the same period of the previous year, it increased by 5.9% in raw data terms and by 5.1% in working-day adjusted data terms. Compared with September 2022, on a monthly basis, seasonally and working-day adjusted industrial production expanded by 3.5% in October 2022. However, an opposite trend has already emerged for sales, despite October 2022 industrial sales being 5.8% higher overall than a year earlier. Domestic sales fell by 3.3%, while export sales increased by 13.9%.

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 contribution of individual sectors to industrial production varies. Accordingly, manufacturing continued to account for the largest share (95.5%) in October 2022. This was followed by electricity, gas, steam and air conditioning supply at 4.1% and mining and quarrying at 0.5%. Manufacturing output grew by 6.4% compared to the same period of the previous year. However, energy industry output fell by 3.7%. Production in mining and quarrying, the smallest sector, increased by 3.3% compared to the same period last year. Within manufacturing, the largest contribution among sub-sectors to manufacturing output in October 2022 was made by the automotive industry (24.7%). The production volume of this sector increased by 32.1% compared to the same period of the previous year. In terms of contribution to manufacturing, three other sub-sectors, slightly behind automotive manufacturing, account for a larger share (12.7%-10.0%) of manufacturing output in October 2022. With a 12.7% contribution to manufacturing, the output of the food, beverages and tobacco sector fell by 1.1% year on year due to the high base effect. The computer, electronic and optical products manufacturing sector, which contributed 11.4% of manufacturing output, expanded by 20.1% year on year due to a low base. The output of the electrical equipment manufacturing sector, with a 10.0% share in manufacturing, increased by 57.0% compared to the same period of the previous year, despite the high base.

The annual performance of the sectors with a medium (6-10%) contribution to manufacturing output (rubber, metals industry and coke production) was as follows. The performance of the rubber sector decreased by 6.6% compared to the same period last year, also due to the high base. Looking back over the same period of several years, the decline in performance is below the more than 10% in 2020, but there is a slowdown compared to the years before the coronavirus epidemic. For the metals industry, the sector's annual output fell by 16.3% compared to the previous year's high base. However, despite the high base, there is a downward trend in the sector's performance. The output of the coke and refined petroleum products sector fell by 27.6%, also compared to the previous year's exceptionally high base. However, this sector continued to expand until May 2022, despite the high base in the previous year, a trend that was interrupted and reversed from June 2022, in which increased energy prices may have played a role.

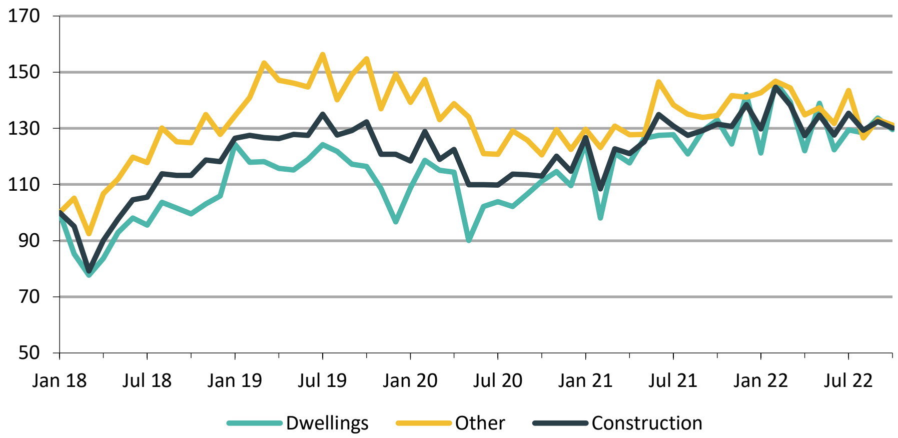
At the end of October 2022, total stock of sales orders in the manufacturing industries observed by the HCSO was 19.8% higher than a year earlier, due only to an increase in export sales orders (21.6%). Export sales orders were pulled up mainly by growth in the automotive, computer, electronic and optical products and pharmaceuticals sectors. The stock of domestic sales orders contracted by 5.1% compared to the same period last year. At the same time, some sub-sectors showed an expansion. Despite the high base, the production of computer, electronic and optical products exceeded the October 2021 stock of orders by more than 18.2%, and the production of electrical equipment by 30%. The stock of new sales orders increased by 18.8% year on year, driven by new export sales orders. While the stock of new domestic sales orders contracted by 9.7%, the stock of new export sales orders increased by 25.3% compared to October 2021. The largest decline in new domestic sales orders (43.9%) was in the chemicals and chemical products manufacturing sector. The largest increase (34.1%) was in the electrical equipment and manufacturing sector. The largest contraction in new export sales orders (21.7%) was in the metals industry. The largest increases were in electrical equipment manufacturing (57.4%) and automotive manufacturing (55.0%).

The stock of new construction sales orders fell even

Construction output in October 2022 fell by 1.8% month on month and by 2.5% year on year. Compared to the same period of the previous year, construction of buildings and civil engineering works fell by 3.0% and 1.5%, respectively. The stock of sales orders in the construction sector rose by 1.4% year on year at the end of October 2022. The increase in the stock of sales orders was due to a 2.9% rise in civil engineering works.

In October 2022, the stock of new construction contracts increased by 21.5%, driven by growth in both major construction groups. However, the stock of new contracts for civil engineering works increased at a much higher rate (by 41.3%) than that for buildings (by 5.2%).

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

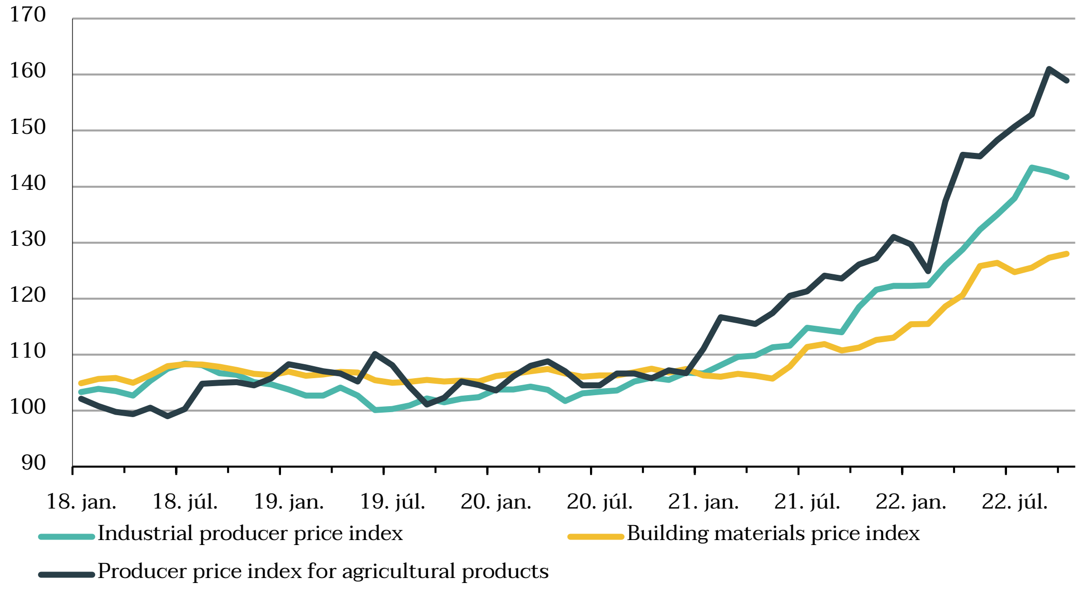


Remark: Seasonally and calendar adjusted indices.

Source: Hungarian Central Statistical Office, Századvég

An important factor for both new industrial and new construction sales orders is the evolution of producer prices. The **industrial** producer price index rose by 41.7% year on year in October 2022, but the price increase slowed from September 2022. While the industrial producer price index rose by 43.4% year on year in August 2022, it was 42.7% in September 2022 and 41.7% in October 2022. More widely, industrial producer prices started to rise slowly from mid-2020, except from July to October 2021, until February 2022, when they started to rise strongly from March 2022, by 2.7-3.5 percentage points per month. This trend reversed in September 2022, when price index growth started to weaken by 0.7-1.0 percentage points. For **construction**, the building materials price index was 28.0% higher in October 2022 than a year earlier. The increase in building material prices started just a year ago, in October 2021, and accelerated in the March-May period of 2022, when the building material price index rose by 2.0-5.2 percentage points per month. This strong growth rate has slowed, but there has been no decline in the growth rate. The factor driving up food prices is the producer prices of **agricultural** products. In October 2022, the producer price index for agricultural products increased by 58.9% year on year. Over a longer period, this is the start of a slow decline. The producer price index for agricultural products peaked at an annual rate of 61.0% in September 2022. This was mainly due to the significant increase in fertiliser, feed and energy prices. Compared to the same period of the previous year, fertiliser prices increased by 204.8%, energy prices by 46.8% and animal feeding stuff prices by 44.6% in Q1-Q3 2022 in agricultural input prices.

FIGURE 5: INDUSTRIAL PRODUCER PRICE INDEX, BUILDING MATERIALS PRICE INDEX, AGRICULTURAL PRODUCER PRICE INDEX (SAME PERIOD OF PREVIOUS YEAR = 100%)



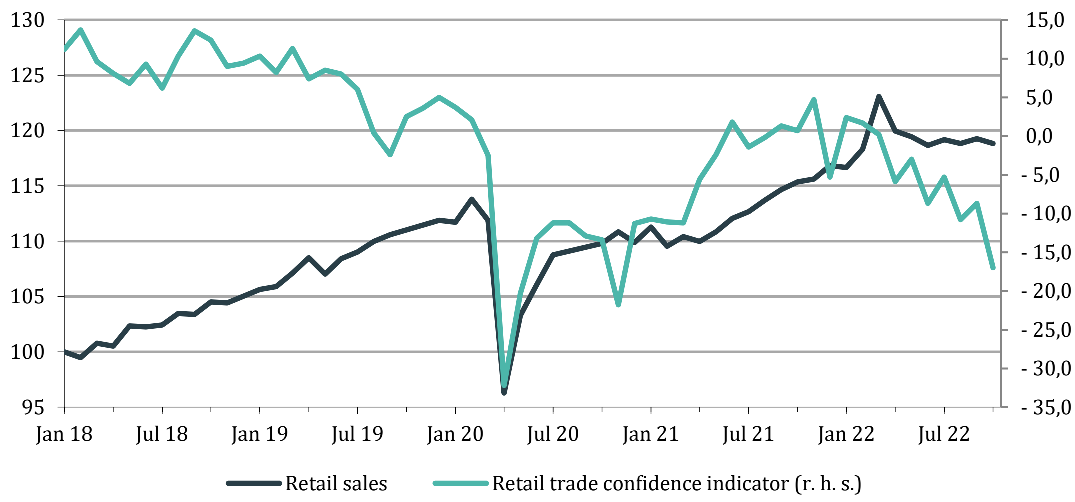
Source:: Hungarian Central Statistical Office, *Századvég*

The volume of retail sales increased by 0.6%.

In October 2022, retail sales increased by 0.6% compared to the same period of the previous year, based on both raw data and calendar-adjusted data. Excluding motor vehicle fuel sales, retail sales fell slightly (3.5%) in October. The slowdown in sales growth is partly due to a continuous 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 sanctions policies, the summer drought and the volatile exchange rate of the forint are generating increasing inflationary pressures in the economy, which, combined with a rising interest rate environment, are encouraging households to rationalise consumption. Future uncertainty and still minimal upside inflation risks are also holding back current consumption, with the slowdown mainly due to the combined effect of these factors. In October 2022, turnover in specialised and non-specialised food shops decreased by 5.6%, while turnover in non-food shops also decreased by 0.9%. In fuel retail, calendar-adjusted volume of sales increased by 19.7% compared to October 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 0.9%, while foodstuffs fell by 5.6%. In non-food retail, the sales of books, newspapers and stationery fell by 5.5%, that of pharmaceuticals and perfumes by 2.0% and that of mail order and internet services by 1.7% compared to the same period last year. In contrast, the biggest sales increase (8.6%) was in second-hand goods. Additionally, only the mixed range of manufactured goods (5.4%) showed an increase compared to October of the previous year.

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



Remark: Seasonally and calendar adjusted indices.

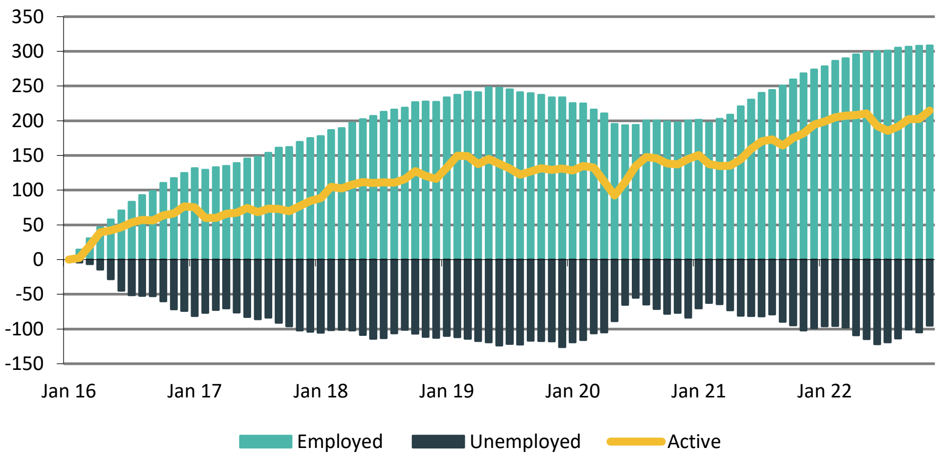
Source: Hungarian Central Statistical Office, Eurostat, Századvég

Unemployment rate at 3.8% in October

In September-November, the seasonally adjusted activity rate of the population aged 15-74 was 66.71% (4,882,000 persons), which means an increase of 33,000 in the labour market compared to the same period in 2021. This labour surplus is partly reflected in an increase in the number of employees. In the three months under review, the seasonally adjusted number of employees was around 4,698,000, an increase of 4,600 and 26,300 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[1] reaching 183,000 in September-November 2022, an increase of 18,300 compared to the third quarter and 6,200 compared to the previous year.

In October, the number of employees increased by 7,300 compared to September, based on seasonally adjusted data, and by 43,000 compared to the same period of the previous year. The most significant increase in the number of employees was in the competitive sector, with 56,100 more working in enterprises having at least 5 employees compared to 2021, up by more than 2,700 compared to September. The number of employees in the non-profit sector stagnated during the month, while the number of employees in the public sector fell by 1,100 compared to the previous month.

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



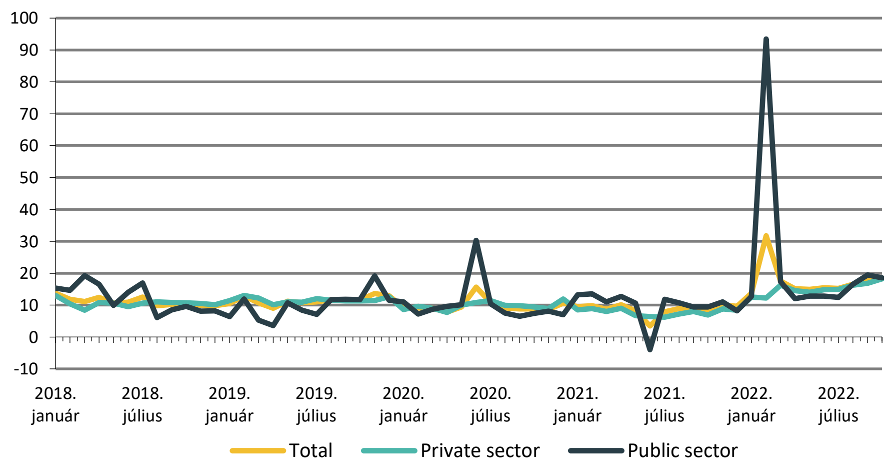
Remark: Seasonally and calendar adjusted indices
Source: Hungarian Central Statistical Office, Századvég

[1] Also seasonally adjusted.

Real wages fell in October.

In October, the average gross monthly wage in the national economy was HUF 510,500, up 18.4% compared to the same period last year. The highest average gross monthly wage was recorded in the competitive sector, at HUF 521,980. The average net monthly wage including benefits was HUF 347,500, an annual increase of 18.3%. The average regular gross monthly wage, excluding bonuses, rewards and one-off allowances, increased by 15.7% in November compared to a year earlier, to an estimated HUF 464,800. Real wages fell by 2.2%, reflecting accelerating inflation, which was 21.1% in October. The median gross monthly wage was HUF 414,000.

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



Source: Hungarian Central Statistical Office, Századvég

2.4 External balance

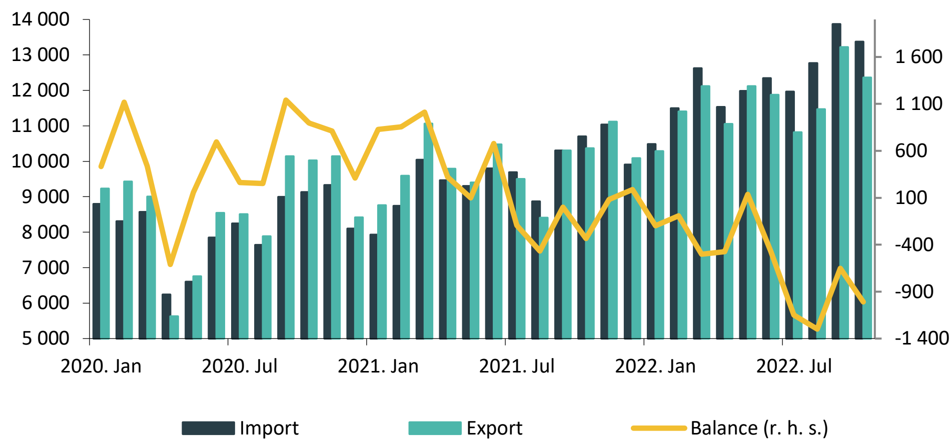
In August, exports of goods increased by 29.0% and imports by 35.0% year on year in euro terms. The foreign trade deficit was, therefore, EUR 745 million, EUR 663 million less than in the previous year.

In September, the volume of food product imports increased by 15.0%, and food product exports decreased by 6.1% year on year. As for energy carriers, imports increased by 17.0% and exports decreased by 52.0%. As for processed products, imports decreased by 6.6%, and exports by 4.8% on a year-on-year basis. As for machinery and transport equipment, imports increased by 22.0%, and exports by 32.0%.

The foreign trade balance deteriorated.

In October 2022, the EUR value of exports was 21.0% higher and the EUR value of imports was 26.0% higher than a year earlier. The trade deficit in goods amounted to EUR 1.0 billion, which is EUR 588 million higher than a year earlier.

FIGURE 9: FOREIGN TRADE BALANCE (EUR MILLION)



Remark: The October 2022 figures are from the first estimate.

Source: Hungarian Central Statistical Office, Századvég

2.5 Fiscal outlook

Tax and contribution receipts were 17.7% higher in the first eleven months of the year.

At the end of November 2022, the cumulative deficit of the central budgetary subsystem stood at HUF 3,466.4 billion. This was caused by a deficit of HUF 3,367.2 billion in the central budget and HUF 389.7 billion in social security funds, as well as a surplus of HUF 290.5 billion in extra-budgetary funds.

The government has declared that it intends to maintain the 4.9% deficit target in line with the underlying trend.

After the pension increases in January and July, pensions and related benefits rose by a further 4.5% in November, bringing the total increase to 14% this year. The additional pension increase in November meant a total of HUF 217 billion for those affected. GDP growth has reached the level to which the Government has linked the payment of the pension premium, so in November a one-off pension premium of HUF 23.5 billion in total was paid to around 2.5 million people.

Central government revenues at the end of November were 21.1% higher than in the same period of the previous year, with tax and contribution receipts 17.7% higher.

Receipts from business organisations accounted for 129.6% of the annual target up to November, the highest completion rate and the highest increase (47.2%) of the three main tax revenue groups. Corporate tax revenues, the most significant item among payments by business entities, accounted for 117.8% of the annual target by the end of November, exceeding the balance of the same period last year by HUF 177 billion (34.3%). Compared to the same period last year, payments by financial institutions and mining royalties increased significantly, by HUF 139 billion and HUF 166.2 billion, respectively, mainly due to the temporary introduction of special taxes in 2022.

Revenues from consumption-related taxes were 24.3% higher than a year earlier. VAT receipts were HUF 1,332.4 billion (27.8%) higher than the cumulative total for the same period of the previous year. By the end of November, 111.7% 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 4.2 billion (0.4%) less than between January and November 2021. This was driven by higher revenues from tobacco and spirits and other products, and lower revenues from fuels.

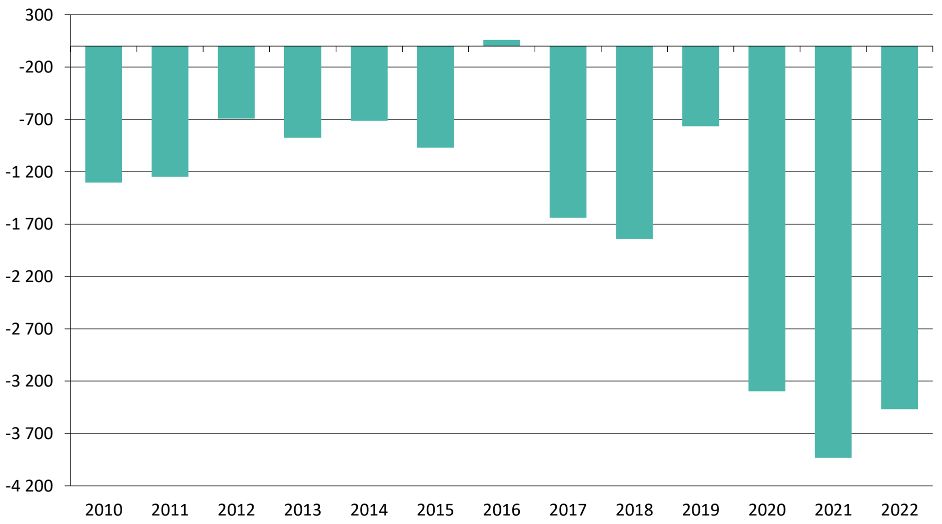
Personal income tax receipts decreased by 5.6% (HUF 147.5 billion) compared to the period between January and November 2021. The decline is driven by a one-off tax rebate for parents with children, while income tax revenues, which increase as wages rise, gradually mitigate the negative impact. Receipts from social contribution tax and social insurance contributions increased by 11.3% (HUF 537.6 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 1,179.8 billion by the end of November 2022, which corresponds to 49.9% of the statutory target. At the same time, the cumulative expenditure of EU programmes closed at HUF 2,747.4 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 239.2 billion higher than in the same period of the previous year, reaching 148.9% of the annual target. In the first nine months of the year, expenditure on chapter-administered professional appropriations was HUF 568.2 billion higher than in the same period of the previous year, and 132.8% of the annual target.

In the January-November period of 2022, cumulative expenditure on retirement benefits amounted to HUF 4,421.0 billion, up by 16.5% compared to the same period of the previous year. During the same period, the Health Insurance Fund spent HUF 3,379.3 billion, an increase of 17.7% 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 21.1%.

FIGURE 10: CENTRAL SUBSYSTEM BALANCE, 2010–2022 JANUARY-NOVEMBER MONTH (HUF BILLION)



Source: Ministry of Finance, Századvég

2.6 Monetary developments

In November, prices increased by 22.5%, on average.

In November 2022, consumer prices increased by 22.5% on average, compared to the same period of the previous year. In addition to the increases in the prices of food (43.8%) and consumer durables (14.4%), the biggest price increases in the past year were for household energy (65.9%), due to changes in the terms for discount household utility prices. Consumer prices rose by 1.8% on average over a month. The seasonally adjusted core inflation rate showed a year-on-year increase of 24.0%.

The more significant contributors to the 43.8% average increase in food prices were the 102.9% increase in egg prices, the 81.8% increase in bread prices, the 78.8% increase in cheese prices and the 79.0% increase in dairy product prices. The average inflation of 54.4% for poultry meat and 53.7% for flour also outpaced average food inflation for the month. In contrast, pork prices rose at a below-average rate (28.9%), while sugar (12.4%) and edible oil (3.2%) inflation was also below average. Products with newly introduced regulated prices (potatoes, eggs) have a medium weight in the consumer basket, so these measures mainly support the population in the purchase of basic foodstuffs, with only a small impact on inflation.

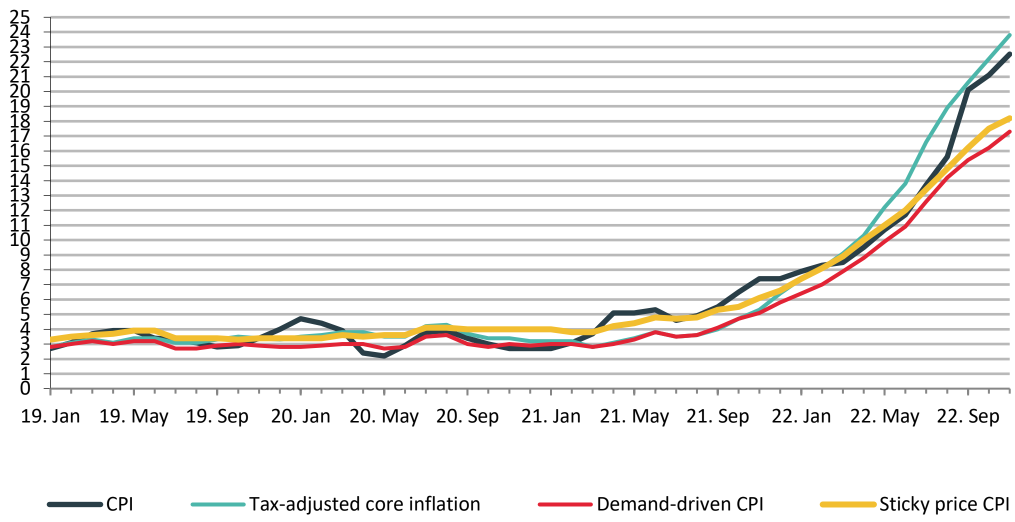
The 24.0% increase in new car prices played a particularly important role in the 14.4% average increase in the prices of consumer durables. Room furniture prices also increased at an above-average rate, by 19.6%, while kitchen furniture prices rose by 19.8% compared to the same period last year. Jewellery also saw a significant price increase of 20.7% in on a yearly basis in November. Consumer durables inflation is moderated by a 4.7% increase in the prices of computers, cameras and telephones, and a 0.3% increase in the prices of televisions. For consumer durables, volatile forint exchange rates are among the factors that increase inflation risks, along with supply chain constraints, the impact of sanctions and spare parts shortages.

The average increase in household energy prices was 65.9% in November, compared to the same period of the previous year. Within household energy, the price of piped natural gas increased by 124.3%, electricity by 28.3% and cylinder natural gas by 52.1% 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 November. This trend is expected to continue until September 2023, when the base effect will take effect.

In November, the price of services rose by an average of 9.0%, with home repair and maintenance up 23.9%, vehicle repair and maintenance up 22.7% and taxi up 27.8%. 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 0.2% decrease in the price of local public transport. Clothing prices increased by 8.0% on average over a year.

Compared to the previous month, the price of firewood increased by 3.9%, the average price of food increased by 3.6% and the average pet food prices increased by 4.4%. The price of services fell by 0.9% on a monthly basis.

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



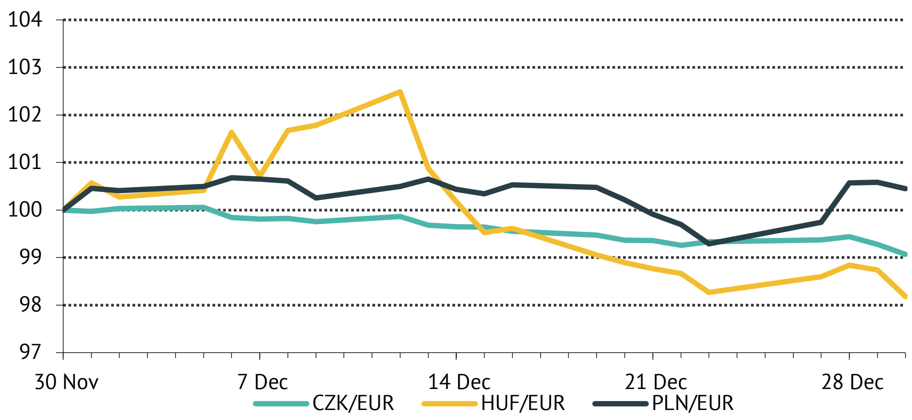
Source: MNB, Századvég

Among the core inflation indicators published by the MNB, in November, the seasonally adjusted core inflation rate was 24.0%, the core inflation rate net of indirect taxes was 23.8%, and the sticky price inflation rate was 18.2%. Core inflation excluding processed food was 17.3% in the eleventh month of the year.

The Czech koruna strengthened, while the

Exchange rates in the region showed a mixed picture in relation to the euro. In the past period, the Czech koruna strengthened by 0.93%, while the Polish zloty weakened by 0.45% against the euro. However, government security yields have increased: the Czech 10-year government bond yield closed 38 basis points higher at 5.12%, while the Polish 10-year yield closed 28 basis points higher at 6.89%.

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



Source: Refinitiv, Századvég

The Forint strengthened against

Indicators of the Hungarian financial and foreign currency markets have shown an overall more positive picture in the past period. The 10-year government bond yield closed at 9.27%, rising 92 basis points. The HUF strengthened by 1.82% against the euro, by 1.73% against the Swiss franc and by 4.54% against the US dollar. This means that at the end of December 2022, one euro was worth 400 forints, one US dollar was worth 376 Forints and one Swiss franc was worth 407 forints. Sovereign debt held by foreigners has recently decreased by HUF 413 billion to HUF 5,170 billion.

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

At its December 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.

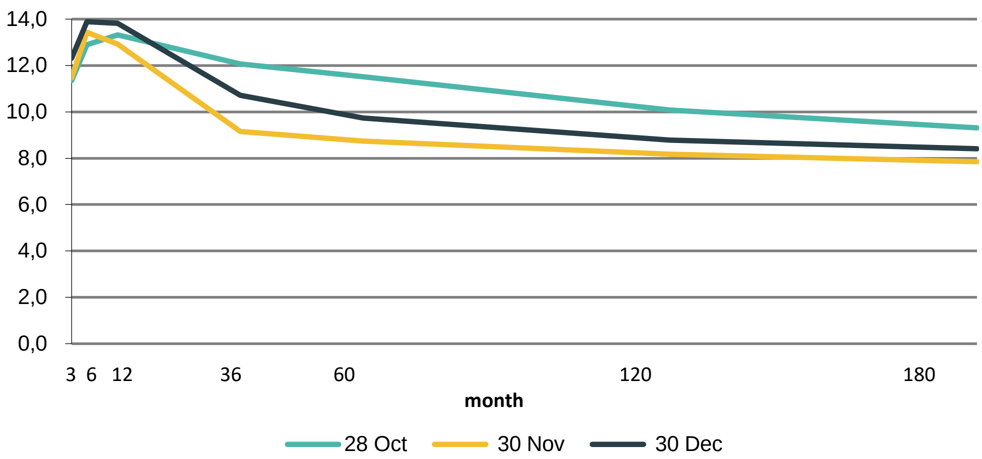
Over the past month in the government bond market, yields for shorter maturities varied between 46 basis points and 90 basis points on the secondary yield curve. This means that the 3-month yield was 12.32%, the 6-month yield was 13.89% and the 1-year yield was 13.82% on 30 December. The 3-year yield increased by 155 basis points to 10.71%. Yields are down 99 basis points over the 5-year horizon, 60 basis points over the 10-year horizon and 56 basis points over the 15-year horizon compared to the previous month. These three yields changed, therefore, to 9.73%, 8.78%, and 8.41%, respectively.

On 30 December 2022, the total value of "MÁP Plusz" government securities held by retail investors was HUF 2,434.5 billion after a HUF 277.8 billion decrease from the HUF 2,712.3 billion level at the end of November 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 4,321.6 billion (PMÁP as of 30 November: HUF 4,080.6 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. In an environment of significantly higher interest rates, the total stock of government securities held by the general public was HUF 8,619.3 billion at the end of December 2022, down from HUF 10,010.2 billion at the end of 2021.

The share of foreign currency debt in the sovereign debt changed to 25.0% in December (i.e. decreased by 0.2 percentage point), which is in the range (10–25%) specified in the financing plan for 2022 of GDMA.

At the end of December, 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 (%)

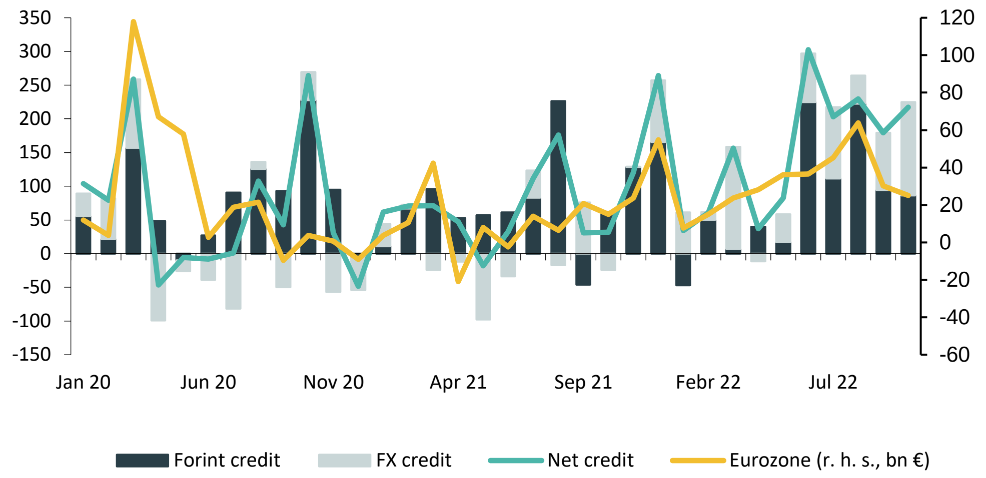


Source: GDMA, Századvég

Corporate credits in foreign currencies have

Seasonally adjusted data show that the net borrowing of HUF loans in the business sector was HUF 86.5 billion in October 2022. The net borrowing of foreign currency loans was HUF 138.5 billion in October; in other words, the aggregate value of foreign currency loans held by the business sector, i.e. exchange rate risk exposure, increased. Total net borrowing, based on seasonally adjusted data, amounted, therefore, to HUF 217.4 billion in October. Corporate borrowing in the euro area was EUR 25.0 billion in October 2022.

FIGURE 14: CORPORATE BORROWING (HUF BILLION)



Source: MNB, ECB, Századvég

3. Macroeconomic forecast

We forecast Hungarian economic output to grow by 5.3% this year, 1.9% next year and 4.9% in 2024. Within this, the volume of domestic demand is expected to grow by 6% in 2022, 0% in 2023 and 4.4% in 2024. The high inflationary environment this year has encouraged households to cut back on consumption, a trend that could continue next year. Tightening monetary policy and rising energy and commodity prices may encourage businesses to cut back on investment this year and early next year.

The government announced cost-cutting in Q3 2022. However, under the December agreement on the resources available from the Recovery Fund, government spending could increase modestly in 2023. We forecast government spending to rise by 2.7% in 2022, 1.7% in 2023 and 1.9% in 2024.

Exports could grow by 8.6% in 2022, 0.8% next year and 7.4% in 2024. Export developments are most likely to be determined by subdued economic growth in external trading partners. We expect Germany and France to have GDP growth of between 2-3%. Domestic imports could rise by 8.2% this year, -0.9% next year and 6.3% in 2024. Import performance is mainly determined by the dynamics of exports and domestic demand.

In 2022, we could see a significant acceleration in inflation. On a year-on-year basis, inflation this year could be 14.4%. We expect inflation to peak next year and to moderate in the second half of the year. As a result, inflation could be 19.3% in 2023 and 9.6% in 2024. The acceleration in inflation is mainly due to rising oil and energy prices and the fragmentation of supply chains, which was also supported by strong demand and a weak forint exchange rate at the beginning of the year. In Hungary, the increase in the base rate and the relevant instrument rate so far could help to fight inflation. In addition, the European Central Bank's tightening monetary policy could contribute to containing domestic price increases by reducing external inflationary pressures.

Budget consolidation will be substantially curbed by spending to mitigate the impact of higher energy prices due to the Russo-Ukrainian War. In September, The Ministry of Finance government raised its 2022 general government deficit target under the European Union's ESA methodology from 4.9% of GDP to 6.1%. The new target is justified by the fact that the Hungarian Hydrocarbon Stockpiling Association (HUSA) is considered part of the government sector according to Eurostat's decision, while the HUSA is obliged to accumulate a special natural gas reserve in the value of HUF 740 billion under a July law. Without a decision on the HUSA, the ESA deficit target for 2022 would remain unchanged at 4.9% of GDP in the underlying trend, according to the Ministry of Finance.

We forecast the budget to close with a smaller deficit than the government plans, at 5.9% of GDP. Government debt-to-GDP could rise to 77.0% this year without further government intervention. Based on our projection, the ESA deficit of the general government sector would be 5.0% of GDP in 2023, compared to the 3.5% deficit projected in the Convergence Programme for 2022-2026. At the same time, the Ministry of Finance has already announced that it will prepare a new budget for 2023, which will certainly bring the budget deficit somewhat closer to the previously planned consolidation path. Government debt could also fall to 73.5% of GDP in our current projection, on the back of an expected improvement in the cash deficit.

4. Századvég's forecast[2]

TABLE 1:2022 Q4 FORECAST

	2021	2022	2023
Gross domestic product (volume index)	7.1	5.3	1.9
Household final consumption expenditure (volume index)	4.6	7.3	1.1
Gross fixed capital formation (volume index)	5.9	3.0	0.7
Export volume index (based on national accounts)	10.3	8.6	0.8
Import volume index (based on national accounts)	8.7	8.2	-0.9
Balance of international trade in goods (EUR billion)	1.9	-9.4	-6.8
Consumer price index (%)	5.1	14.4	19.3
Central bank base interest rate at the end of the period (%)	2.4	13	13
Unemployment rate (%)	4.1	3.6	4.2
Current account balance as a percentage of GDP	-3.1	-6.3	-4.1
Net lending as a percentage of the GDP	-0.5	-3.4	-1.9
ESA balance of public finances as a percentage of GDP	-6.8	-5.9	-5
Sovereign debt as a percentage of GDP	76.8	77.0	73.0

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

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

	2022			2023		
	10.2022	12.2022	change	10.2022	12.2022	change
Gross domestic product (volume index)	4.5	5.3	0.8	1.8	1.9	0.1
Household final consumption expenditure (volume index)	8.0	7.3	-0.7	-0.5	1.1	1.6
Gross fixed capital formation (volume index)	-1.1	3.0	4.1	3.0	0.7	-2.3
Export volume index (based on national accounts)	5.7	8.6	2.9	2.4	0.8	-1.6
Import volume index (based on national accounts)	5.1	8.2	3.2	0.1	-0.9	-1.0
Balance of international trade in goods (EUR billion)	-6.7	-9.4	-2.7	-3.7	-6.8	-3.1
Consumer price index (%)	13.1	14.4	1.3	13.4	19.3	5.9
Central bank base interest rate at the end of the period (%)	13.0	13.0	0.0	9.4	13.0	3.6
Unemployment rate (%)	3.7	3.6	-0.1	4.5	4.2	-0.3
Current account balance as a percentage of GDP	-5.5	-6.3	-0.8	-2.9	-4.1	-1.2
Net lending as a percentage of the GDP	-2.7	-3.4	-0.7	-0.7	-1.9	-1.2
Balance of public finances as a percentage of GDP	-4.5	-5.9	-1.4	-3.7	-5.0	-1.3
Sovereign debt as a percentage of GDP	73.0	77.0	4.0	67.6	73.0	5.4

Source: Századvég's calculation

[2] Date of preparation: 21 December 2022