INFLATION REPORT

2023
SEPTEMBER

'... wise is the man who can put purpose to his desires.'

Miklós Zrínyi: The Life of Matthias Corvinus

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Pursuant to Act CXXXIX of 2013 on the Magyar Nemzeti Bank, the primary objective of Hungary's central bank is to achieve and maintain price stability. Low inflation ensures higher long-term economic growth and a more predictable economic environment, and moderates the cyclical fluctuations that impact both households and companies.

In the inflation targeting system in use since August 2005, the Bank has sought to attain price stability by ensuring an inflation rate near the 3-percent medium-term target. The Monetary Council, the supreme decision-making body of the Magyar Nemzeti Bank, performs a comprehensive review of expected developments in inflation every three months, in order to establish the monetary conditions consistent with achieving the inflation target. The Council's decision is the result of careful consideration of a wide range of factors, including an assessment of prospective economic developments, the inflation outlook, financial and capital market trends and risks to stability.

In order to provide the public with a clear insight into how monetary policy works and to enhance transparency, the Bank publishes the information available at the time of making its monetary policy decisions. The Report presents the inflation forecasts prepared by the Directorate Economic Forecast and Analysis, the Directorate Monetary Policy and Financial Market Analysis, the Directorate for Fiscal and Competitiveness Analysis and the Directorate Financial System Analysis, as well as the macroeconomic developments underlying these forecasts. The forecast is based on the assumption of endogenous monetary policy. In respect of economic variables exogenous to monetary policy, the forecasting rules used in previous issues of the Report are applied.

The analyses in this Report were prepared under the general direction of the acting Director Responsible for Economic Analyses and Competitiveness. The Report was prepared by staff at the MNB's Directorate Economic Forecast and Analysis, Directorate Monetary Policy and Financial Market Analysis, Directorate for Fiscal and Competitiveness Analysis, Directorate Financial System Analysis and Directorate for International Monetary Policy Analysis and Training of Economic Sciences. The Report was approved for publication by Barnabás Virág, Deputy Governor responsible for Monetary Policy, Financial Stability and International Relations.

The Report incorporates valuable input from other areas of the MNB and the Monetary Council's comments.

The projections are based on information available for the period ending 21 September2023.

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The Monetary Council's key findings related to the Inflation report

The primary objective of the Magyar Nemzeti Bank (MNB) is to achieve and maintain price stability. Without prejudice to its primary objective, the Magyar Nemzeti Bank preserves financial stability and supports the Government's economic policy, as well as its policy on environmental sustainability.

While economic growth decelerated in Europe in 2023 Q2, it picked up in China and the United States. The short-term economic outlook is surrounded by downside risks. The persistently high inflationary environment, the ongoing Russia-Ukraine war and generally increasing geopolitical tensions continue to be a source of significant uncertainty to the outlook for economic activity globally, and particularly in Europe.

In the United States, GDP expanded by 2.6 percent year-on-year, while China's annual growth rate was 6.3 percent. In the same period, according to data adjusted for seasonal and the working-day effects, economy in the European Union grew by 0.4 percent in annual terms year-on-year. While economic growth in the EU was in line with expectations, the US economy expanded at a higher rate than earlier expected. Growth in China had been slowed by the housing crisis and a decline in exports. Output in Germany, Hungary's main trading partner, fell by 0.1 percent year-on-year in 2023 Q2.

In the European Union, the annual consumer price index has been falling steadily since inflation peaked in October 2022. While disinflation lost momentum in late summer, global trends point to a continued moderation in price indices.

Weakening global economic demand, lower commodity prices than last year and the correction in international freight costs suggest a continued decline in inflation rates. In the United States, the annual rate of price increase eased to 3 percent early summer before rising to 3.7 percent in August. Inflation in the euro area was 5.2 percent in August. HICP inflation rates reached the single-digit territory in the region, with the exception of the Czech Republic: according to Eurostat, prices rose by 9.3 percent in Romania, 9.5 percent in Poland, 9.6 percent in Slovakia and 10.1 percent in the Czech Republic in August. However, although primary inflation indicators eased in advanced economies, core inflation indicators declined at a much slower pace.

Over the past quarter, the world's leading central banks continued to tighten monetary conditions. Within the region, the Czech and Romanian central banks maintained their policy rates during the period, while the Polish central bank cut its key policy rate by 75 basis points to 6.00 percent in September.

In the United States, at its rate-setting meeting in September, the Federal Reserve (Fed) decided to keep the target range of the benchmark rate at current levels, after having raised it by 25 basis points to 5.25–5.50 percent in July. As regards future decisions, the Fed stressed the importance of taking a data-driven approach. While the Fed's balance sheet total exhibited a sharp, temporary increase from the spring, by August it dropped below the levels seen before the financial disruptions in March. The European Central Bank (ECB) raised its policy rates by 25–25 basis points at its July and September rate-setting meetings and stopped reinvesting maturing securities purchased under its APP programme from July. Based on the communication following the September decision, the ECB is not expected to tighten monetary conditions further.

The Polish central bank cut its policy rate by 75 basis points to 6.00 percent in September. Decision makers of the Czech central bank maintained the base rate at 7 percent over the past quarter, while at its August meeting, formally closing the foreign exchange market intervention period announced in May 2022. The Romanian central bank also maintained the policy rate at 7 percent. The Magyar Nemzeti Bank has maintained the base rate at 13 percent since September last year, while the one-day deposit quick tender rate was reduced to the level of the base rate.

On the whole, investor sentiment deteriorated in the past quarter. Global money and capital market volatility increased following the downgrading of the US credit rating. The deterioration in investor risk appetite is primarily linked to expectations for the monetary policy of the world's leading central banks and the slowdown seen in the European and Chinese economies.

In the past quarter, asset prices were primarily influenced by expectations for the interest policy of major central banks, incoming macroeconomic data and the deteriorating risk appetite arising from the market turbulence in some emerging markets. The downgrading of the US credit rating and the deceleration in the Chinese economy both had a negative effect on investor sentiment. Market expectations point to a longer-term maintenance of the Fed's and the ECB's tight monetary policy stance. The potential date of the first interest rate cut by both central banks is likely to be later than expected previously.

Oil prices have risen sharply to above USD 90 in the recent period. Apart from a few spikes, European gas prices have remained stable, while other energy prices have typically increased. The rise in oil prices was mainly fuelled by concerns over the oil supply, which could not be dampened even by news of a slowdown in the Chinese economy. The dollar appreciated in the period. This may primarily reflect expectations for a sustained, tight monetary policy stance and the outlook for strong economic growth in the US. Developed market yields rose significantly in parallel with a decline in European and Asian stock market indices. Emerging markets showed stronger movements of the same direction as those observed in developed markets.

Despite deteriorating global investor sentiment, major domestic financial markets remained stable over the last quarter. Domestic interbank yields as well as short-term government bond yields fell significantly, in parallel with the MNB's interest rate cuts. The forint depreciated against the euro in the first part of the period, and stabilised thereafter.

Apart from minor spikes, the trend-like decline in the 5-year credit default swap (CDS) spread has continued since the end of June. Meanwhile, the inversion of the government bond market yield curve has moderated, as short-term yields declined over the past 3 months while long-term yields remained broadly unchanged. The moderation in short-term yields was also supported by the government measures concerning investment funds. Interbank interest rates declined at a higher rate than government bond yields at all maturities. Short-term money market yields matched the cuts in the effective interest rate in all sub-markets. Exhibiting large swings, the forint depreciated against the euro in July and subsequently appreciated before stabilising.

The decline in domestic inflation has accelerated in recent months. Tight monetary policy, lower commodity prices compared to last year, subdued domestic consumption and the Government's measures to strengthen market competition are expected to have an increasingly broad-based disinflationary effect. Annual inflation is expected to reach single-digit territory towards the end of the year. However, a further decline in the consumer price index is needed in 2024 to achieve price stability.

Inflation has been falling steadily since it peaked in January. Disinflation is perceived in an increasing number of sectors of the economy: in addition to the deceleration observed in food and industrial inflation, the consumer price index of the services sector also declined notably. Looking ahead, the continued moderation in annual price growth is supported by both external and internal factors. Gas prices and freight costs have been volatile and remained at pre-war levels. Tensions in value chains eased, while the slowdown in global economic activity continues to dampen external inflation. The continued moderation in food inflation has been supported by government measures that are generating stronger competition, in addition to the strong decline in global food commodity prices since May last year. However, the rise in global oil prices has had a strong impact on domestic fuel prices, slowing down the process of disinflation.

The disinflationary effects of tight monetary conditions will become more widespread in 2023. The rate of repricing reflected in inflation already corresponds to the historical average and in August, a similar repricing was seen in core inflation for the first time after a long period. Disinflation appeared in both market services and manufactured goods. The inflation path expected for next year has shifted upwards slightly compared to the June forecast due to the carry-over effect of higher fuel prices. The consumer price index is expected to return to the central bank tolerance band in 2025. Annual inflation may fluctuate between 17.6–18.1 percent in 2023, 4.0–6.0 percent in 2024 and 2.5–3.5 percent in 2025.

Based on the projection in the Inflation Report, in 2023, the volume index of Hungary's GDP is expected to be in the range of (–0.5)–0.5 percent. Economic output is expected to increase by 3.0–4.0 percent in 2024 and 2025. The low economic performance in 2023 has mainly reflected high inflation and the stalling of government investments. Falling real wages due to price rises and consumer and investor decisions becoming more cautious have led to a decline in domestic demand. Net exports make a positive contribution to GDP growth. However, this year's economic performance is expected to be improved significantly by the correction in agricultural growth after last year's drought.

Hungary's GDP declined by 2.4 percent year-on-year in 2023 Q2. Compared to the previous quarter, the economy's performance declined by 0.3 percent. Due to high inflation and deteriorating real income trends, household consumption is expected to fall this year, overall, while the effects of higher corporate costs and the uncertain outlook are reflected in rescheduled or abandoned investment projects. However, agriculture is expected to achieve a significantly higher output this year after last year's drought. The gradual recovery of the economy towards the end of 2023 will also be supported by a return to positive real wage growth and the expected abundant harvest of this year's corn crops in the third quarter, following the extremely poor harvest last year. Hungarian exports may also rise in 2023, and imports are expected to fall due to the decline in domestic demand items and lower energy prices. As a result, net exports are expected to make a positive contribution to economic growth in 2023. While growth in the economies of Hungary's main external trading partners is expected to remain subdued in 2024, the major capacity-expanding investment projects that are currently in progress will offset that impact. With the pick-up in the production of new export capacities built recently, Hungary's export market share is expected to increase further. Declining inflation and the recovery in domestic demand components are likely to support GDP growth in 2024 and 2025.

Although outstanding corporate lending is still rising, its growth is slowing down. Demand in the household credit market is expected to pick up during the second half of the year.

The annual growth rate of corporate loans in the total financial intermediary system moderated by 3 percentage points relative to the previous quarter and stood at 11.4 percent in June. At 9.9 percent, the annual growth of lending to micro, small and medium-sized enterprises, which better captures underlying trends, was lower. In the second quarter, 50 percent of all new disbursements of corporate loans, excluding current account loans, were subsidised. Due to the pick-up in the Széchenyi Card Programme MAX+ and the Baross Gábor Loan Programme, this is significantly higher than the 27 percent share before the launch of the programmes. According to responses to the Lending Survey, credit conditions did not change significantly in the second quarter. Only a few smaller banks reported tighter credit standards. The diverging trends observed in credit demand continued: in net terms, 65 percent of banks perceived increased demand for short-term loans in 2023 Q2, while 29 percent reported a decline in demand for long-term loans. Overall, the growth rate of corporate lending may slow to 5–6 percent by the end of 2023 before it stabilises at around 8–9 percent from the end of 2024.

The annual growth of household lending slowed by 1.8 percentage points quarter-on-quarter and reached 2.8 percent in 2023 Q2. The volume of newly extended housing loans was down 67 percent year-on-year, while personal loans declined by 10 percent, which was supported by the high basis of housing loans due to the Green Home Programme. As a result of the announced changes in subsidised schemes, the prenatal baby support loans and 'urban' Family Housing Support Programme (CSOK) are expected to rise by the end of the year due to forward-shifted demand, which is expected to raise outstanding borrowing this year. Based on responses to the Lending Survey, banks reported decreasing demand for housing loans and increasing demand for consumer loans. Looking ahead, banks expect demand to grow in both segments. The annual growth rate of household lending may reach 3–4 percent at the end of 2023, while it is expected to range between 8–9 percent from the beginning of 2025.

The significantly improving trade balance will bring the current account deficit below 1 percent of GDP this year.

After the trough seen in the previous year, the current account balance is improving rapidly and significantly in 2023. The significant improvement in the external position in recent months has been driven mainly by lower energy prices compared to the previous year, the adjustment of energy consumption and shrinking import intensity due to subdued domestic demand. In parallel, with a pick-up in vehicle and battery production, buoyant exports have also supported the improvement in the trade balance. From 2024, the favourable external balance position is expected to persist, reflecting the utilisation of new export capacities built recently and a normalising global economic environment. Overall, the current account deficit is expected to fall below 1 percent of GDP in 2023, with the balance expected to improve further over the forecast horizon.

The fiscal deficit will continue to decline this year. The deficit target is 3.9 percent of GDP in 2023, 2.9 percent in 2024 and 1.9 percent in 2025. With the macroeconomic path, and particularly the path of consumption, being substantially weaker than expected, the deficit is likely to be above this year's target. The exact level of the deficit will be largely influenced by developments in expenditures around the end of the year. According to our forecast, the government debt ratio is expected to fall from 73.3 percent at the end of to nearly 70 percent of GDP by the end of 2023, driven by the growth in nominal GDP. This will be followed by annual declines of 2.5 percentage points.

Based on the Monetary Council's risk assessment, the baseline projection is surrounded by two-way risks to inflation and economic growth.

A faster recovery in consumption leads to a higher growth path compared to the baseline scenario, while decelerating global economic activity and the withdrawal of capital from emerging markets point to a lower growth path. The latter alternative scenario, along with the increasing room for repricing due to the rapid recovery in domestic demand may increase inflation compared to the baseline scenario, while decelerating global economic activity may result in a general decrease in the inflation environment.

SUMMARY TABLE OF THE BASELINE SCENARIO

(Data show annual changes and the forecast is based on endogenous monetary policy.)

	2022	2023	2024	2025
	Actual		Projection	
Inflation (annual average)				
Core inflation	15.7	18.1 - 18.6	4.4 - 6.8	3.0 - 3.5
Core inflation excluding indirect tax effects	15.6	18.1 - 18.6	4.4 - 6.8	3.0 - 3.5
Inflation	14.5	17.6 - 18.1	4.0 - 6.0	2.5 - 3.5
Economic growth				
Household final consumption expenditure	6.5	(-2.0) - (-1.8)	2.1 - 2.9	2.6 - 3.6
Final consumption of government[1]	0.9	0.2 - 0.6	0.2 - 1.4	0.9 - 2.0
Gross fixed capital formation	1.2	(-8.5) - (-7.5)	2.1 - 5.1	2.6 - 5.5
Domestic absorption	3.9	(-4.0) - (-3.8)	1.8 - 2.8	2.3 - 3.5
Exports	11.8	1.6 - 2.2	4.8 - 6.8	3.7 - 5.4
Imports	11.1	(-2.6) - (-2.0)	3.3 - 5.5	2.7 - 4.7
GDP	4.6	(-0.5) - 0.5	3.0 - 4.0	3.0 - 4.0
Labour productivity[2]	2.8	(-0.3) - (0.0)	2.7 - 3.8	2.4 - 3.8
External balance[3]				
Current account balance	-8.1	(-1.1) - (-0.1)	0.4 - 1.6	1.1 - 2.5
Net lending	-6.0	1.1 - 2.1	2.1 - 3.3	2.7 - 4.1
Government balance[3]				
ESA balance	-6.2	-5.2	-2.9	-1.9
Labour market				
Whole-economy gross average earnings[4]	17.4	13.4 - 13.7	10.0 - 11.2	7.4 - 8.7
Whole-economy employment	1.3	0.5 - 0.6	(-0.1) - 0.5	(-0.1) - 0.6
Private sector gross average earnings[4]	15.7	15.6 - 15.9	9.5 - 10.5	6.9 - 8.1
Private sector employment	2.1	0.8 - 1.0	0.2 - 0.7	0.0 - 0.6
Unemployment rate	3.6	3.9 - 4.0	3.5 - 3.8	3.1 - 3.8
Private sector nominal unit labour cost	9.9	15.2 - 15.7	5.1 - 6.6	4.1 - 5.9
Household real income[5]	5.4	(-1.0) - (-0.8)	2.1 - 3.1	2.5 - 3.7

[1] Includes government consumption and the transfers from government and non-profit institutions.

[2] Whole economy, based on national accounts data.

[3] As a percentage of GDP.

[4] For full-time employees.

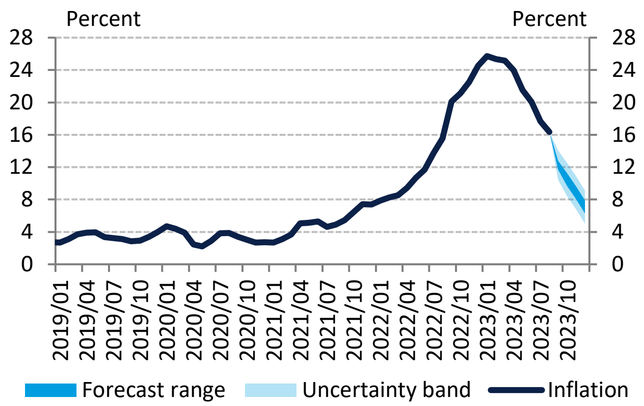
[5] MNB estimate.

1. Inflation and real economy outlook

1.1 Inflation forecast

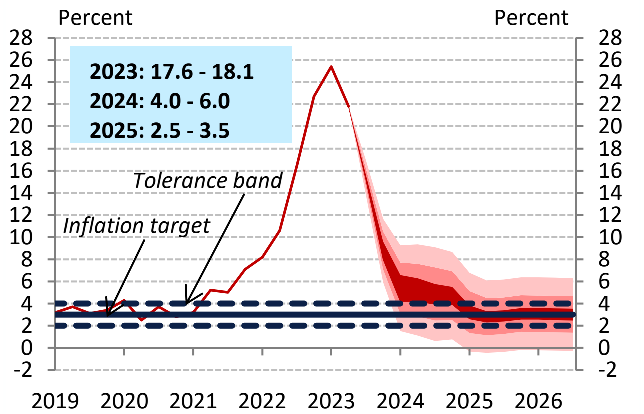
Domestic inflation has continued to fall in recent months, with the consumer price index at 16.4 percent in August. Both external and internal factors point towards disinflation. Gas prices and freight costs have been volatile, but remained at pre-war levels. Tensions in the value chains have eased, while the slowdown in global economic activity continues to dampen external inflation. Tight monetary policy, lower global commodity prices compared to last year, weaker consumption and downward pressure on prices due to government measures to encourage competition have a powerful and increasingly widespread disinflationary impact. The rapid decline in inflation this year has also been supported by base effects. We expect domestic inflation to fall to single digits by November and return to the central bank's tolerance band in 2025. The rise in global oil prices has had a strong impact on domestic fuel prices, slowing the process of disinflation. Owing to the reduced uncertainties, the forecast range for 2023 has shrunk to 17.6–18.1 percent. According to our forecast, the consumer price index will be 4.0–6.0 percent in 2024 and 2.5–3.5 percent in 2025.

Chart 1-1: Monthly evolution of the near-term inflation forecast



Note: Annual change. The uncertainty band shows the uncertainty around the forecast range with regards to the root mean squared error of previous years' near-term forecasts.
Source: HCSO, MNB

Chart 1-2: Fan chart of the inflation forecast



Note: Based on seasonally unadjusted data.
Source: HCSO, MNB

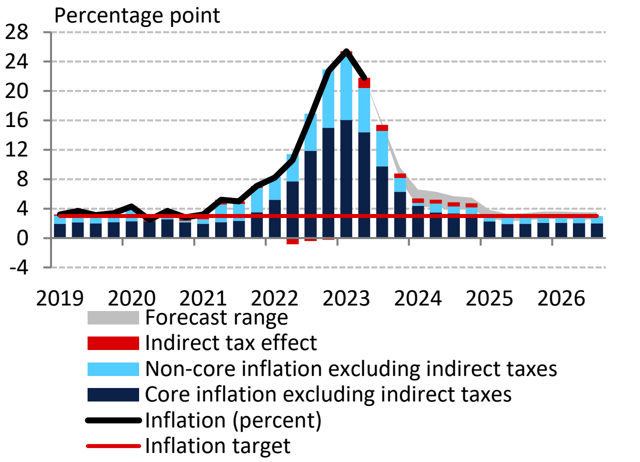
According to our forecast, domestic inflation will fall dynamically for the rest of the year and is expected to drop to single-digit territory by November (Chart 1-1). The continued decline in annual price dynamics is supported both by external and internal factors. Tight monetary policy, lower global commodity prices compared to last year, weaker consumption and downward pressure on prices owing to government measures to promote competition have a powerful and increasingly widespread disinflationary impact. The rapid decline in inflation this year has also been supported by base effects. Once these effects have worn off, disinflation will continue at a slower pace in 2024.

The consumer price index will return to the central bank's tolerance band in 2025. Due to the lower uncertainty, the band of the 2023 inflation projection has narrowed relative to our June forecast. Next year's consumer price index may be higher than envisaged in the June forecast, due to the slowdown in the disinflationary process caused by higher fuel prices resulting from developments in global oil prices. This effect is partly offset by a faster-than-expected decline in the rate of inflation for market services. Inflation may amount to 17.6–18.1 percent in 2023, 4.0-6.0 percent in 2024 and 2.5–3.5 percent in 2025 (Chart 1-2).

Our forecast for core inflation excluding indirect tax effects, which captures underlying inflation, is 18.1-18.6 percent in 2023, 4.4–6.8 percent in 2024 and 3.0–3.5 percent in 2025. Due to the higher persistence of core inflation items, core inflation is expected to decline more slowly than the consumer price index. Our forecast for core inflation excluding indirect taxes is lower than our June projection, reflecting the faster-than-expected disinflation in market services.

As the effect of fuel prices is slowing down disinflation, price dynamics for non-core inflation items may be higher

Chart 1-3: Decomposition of our inflation forecast



Note: The decomposition is based on the midpoint for the forecast range.
Source: HCSO, MNB

Table 1-1: Details of the inflation forecast

		2023	2024	2025
Core inflation excluding indirect tax effects		18.1 - 18.6	4.4 - 6.8	3.0 - 3.5
Core inflation		18.1 - 18.6	4.4 - 6.8	3.0 - 3.5
Non-core inflation	Unprocessed food	20.5	4.6	4.4
	Fuel and market energy	28.2	12.1	1.3
	Regulated prices	12.5	0.1	2.6
	Alcohol and tobacco	15.0	2.4	3.0
Inflation		**17.6 - 18.1**	**4.0 - 6.0**	**2.5 - 3.5**

Note: Percent. Based on seasonally unadjusted data. The table is based on the midpoint of the forecast range.
Source: MNB

this year and next year than expected in June. Gas prices and freight costs have been volatile, but remained at pre-war levels, while tensions in value chains have eased. The global market price of Brent crude oil has increased by more than USD 15 since the end of June and now exceeds USD 90 per barrel. The rise in global oil prices has had a strong impact on domestic fuel prices, decelerating the process of disinflation. Annual inflation in the fuel and market energy product group is expected to be around 28 percent this year and 12 percent next year (Table 1-1). The decline in global food raw material prices supports further moderation in food price inflation. Unprocessed food inflation peaked in November, and the annual price increase in this product group may be around 20 percent for the whole of this year and in the single-digit range next year. Inflation for alcohol and tobacco products will be around 15 percent this year (mainly due to excise tax hikes) and then fall substantially from 2024 once these effects wear off. According to our forecast, as result of amending the utility prices (gas and electricity prices), the inflation of regulated energy prices will amount to around 18 percent on average in 2023. In our analysis, we applied the technical assumption that the measures impacting household energy and food prices will remain in force in unchanged form over the entire forecast horizon.

Box 1-1: Assumptions applied our forecast

Hungary is a small open economy, and as such our forecasts for the most important macroeconomic variables are fundamentally influenced by developments in external factors. The purpose of this brief presentation of the changes in external assumptions is to make our forecasts more transparent (Table 1-2).

Table 1-2: Main external assumptions of our forecast

Technical assumptions	2023		2024		2025		Change		
	Previous	Current	Previous	Current	Previous	Current	2022	2023	2024
EUR/USD	1.07	1.09	1.07	1.10	1.07	1.10	1.4%	2.5%	2.5%
Oil (USD/barrel)	77.2	83.5	72.0	84.5	71.0	81.1	8.2%	17.4%	14.3%
Oil (EUR/barrel)	71.8	76.7	67.3	77.0	66.3	73.9	6.7%	14.5%	11.5%
Gas (EUR/MWh)	37.8	41.1	43.0	51.3	46.1	56.0	8.7%	19.3%	21.5%
Euro area inflation (%)	5.4	5.6	3.0	3.2	2.2	2.1	0.2 pp.	0.2 pp.	-0.1 pp.
Euro area real GDP (%)	0.9	0.7	1.5	1.0	1.6	1.5	-0.2 pp.	-0.5 pp.	-0.1 pp.
GDP growth of Hungary's main export partners* (%)	(-0.3) - 0.9	(-0.3) - 0.9	2.4 - 3.3	2.0 - 2.9	1.9 - 2.7	1.9 - 2.7	0.0 pp.	-0.4 pp.	0.0 pp.

Source: Bloomberg, Consensus Economics, MNB, ECB

In 2023 Q2, GDP growth continued to slow in most EU economies, while it accelerated in the US and China. Global industrial production stagnated in the second quarter, while trade declined somewhat and was below the prior-year level.

In recent months, the global economy has also been supported by lower inflation rates and a favourable labour market situation. At the same time, the protracted war, the general rise in geopolitical tensions and the slowdown in the Chinese economy continue to represent risks to the development of external demand. International business confidence indices show that consumer confidence in the EU economies remains at very low levels and business sentiment has deteriorated. Purchasing managers' indices for the services sector fell and the manufacturing outlook remained pessimistic in the second quarter as the level of global new orders dropped. In quarter-on-quarter terms, GDP fell in 10 of the 27 countries in the European Union. Output in Germany, Hungary's main trading partner, contracted by 0.1 percent on an annual basis in 2023 Q2. In the first quarter, the US economy grew by 2.6 percent, while the economy of China grew by 6.3 percent compared to the same prior-year period. Economic growth in the euro area and the US was stronger than anticipated, while growth in China was lower than expected, due to the real estate sector crisis and falling exports.

The ECB expects lower growth and higher inflation in the euro area compared to its June forecast. The ECB projects euro area GDP growth to be 0.2 percentage points lower in 2023 and 0.5 percentage points lower in 2024 in comparison to its previous forecast, with a growth rate of 0.7 percent for this year and 1.0 percent for next year. A growth rate of 1.5 percent is expected in 2025. Based on the ECB's September forecast, euro area inflation may be 0.2 percentage points higher both this year and next year, at 5.6 percent in 2023, 3.2 percent in 2024 and 2.1 percent in 2025.

As a result of narrower supply, the price of Brent crude oil has been rising since the end of June and is now above USD 90. World oil prices increased by more than 25 percent over the course of two months as the OPEC+ countries reduced output. In June, Saudi Arabia, one of the largest producers, announced a production cut of 1 million barrels starting from July, which was extended until August and then until the end of the year. Russia announced an export cut of 500,000 barrels per day for August, followed by a cut of 300,000 barrels per day for September, which was extended until the end of the year. The price difference between Brent and the Russian-type Ural crude oil persisted in the past period as well.

Domestic petrol and diesel prices have risen sharply in recent weeks. Hungary still receives Russian Ural crude via pipeline, but the market price of gasoline and diesel is determined by Brent crude oil, and accordingly that price, which is quoted in USD, and the USD/HUF exchange rate have significant impact on fuel prices. In line with international trends, the market prices of petrol and diesel have also been rising significantly in Hungary since the beginning of July.

The TTF gas price has been volatile in recent weeks, but remains below the levels seen before the outbreak of the Russia-Ukraine war. Domestic and European gas purchase prices follow the Dutch TTF gas price, which reached its historic peak above EUR 300 in August 2022. Natural gas prices started to fall significantly from the second half of December and continued to do so during the spring months. The milder-than-usual winter weather, the high filling level of gas storage facilities and weakening gas demand also contributed to lower gas prices. However, during the summer, the price spiked several times on news of uncertainties about LNG deliveries. In mid-September, gas prices were around the level of EUR 35. Changes in gas prices also affect the price of electricity via natural gas-fired power plants. In line with the low level of gas prices, the 7-day moving average of the German Phelix electricity price has been below EUR 120 for the last six months, well below the December levels of nearly EUR 400.

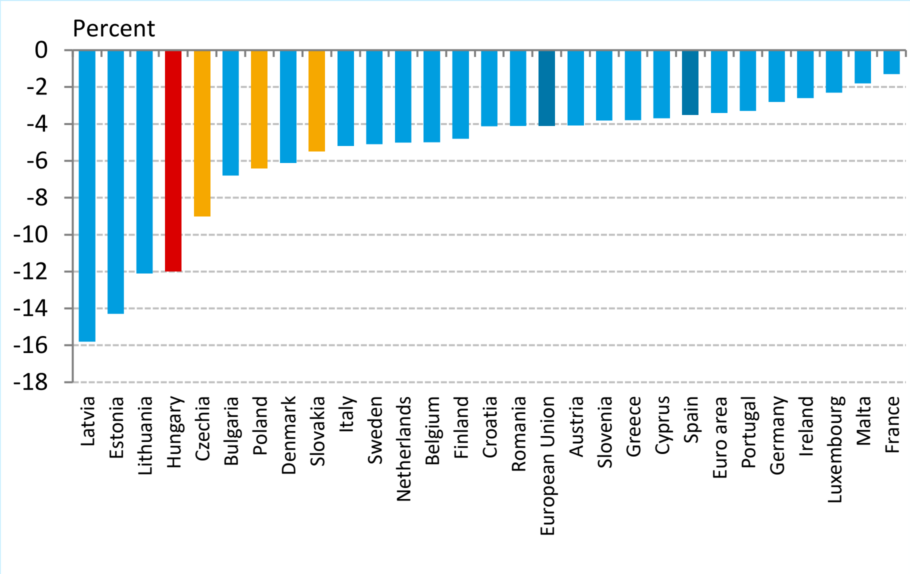
According to our forecast, the budget deficit may decrease in 2023 compared to previous year's value of 6.2 percent of GDP, but based on the substantially less favourable-than-expected macroeconomic path and budget data for the first half of the year, this year's deficit may exceed the budget deficit target of 3.9 percent without further measures and could amount to 5.2 percent of GDP. The government's deficit targets are 2.9 percent of GDP in 2024 and 1.9 percent of GDP in 2025. The debt-to-GDP ratio may decline to nearly 70 percent by the end of 2023 and then to 66 percent by the end of the projection horizon.

Considerable uncertainties still exist concerning the potential receipt of EU funding. In addition to transfers, the government also applied for EUR 3.9 billion in preferential recovery loans at the end of August.

Box 1-2: Sources of domestic disinflation

Domestic inflation peaked at 25.7 percent in January of this year and then dropped to 16.4 percent in August. The Hungarian disinflation was the fourth largest in the EU since January (according to the HICP statistics used by Eurostat, the decrease in inflation in Hungary amounted to 12 percentage points).

Chart 1-4: Decrease in HICP inflation since January in the EU (August 2023)

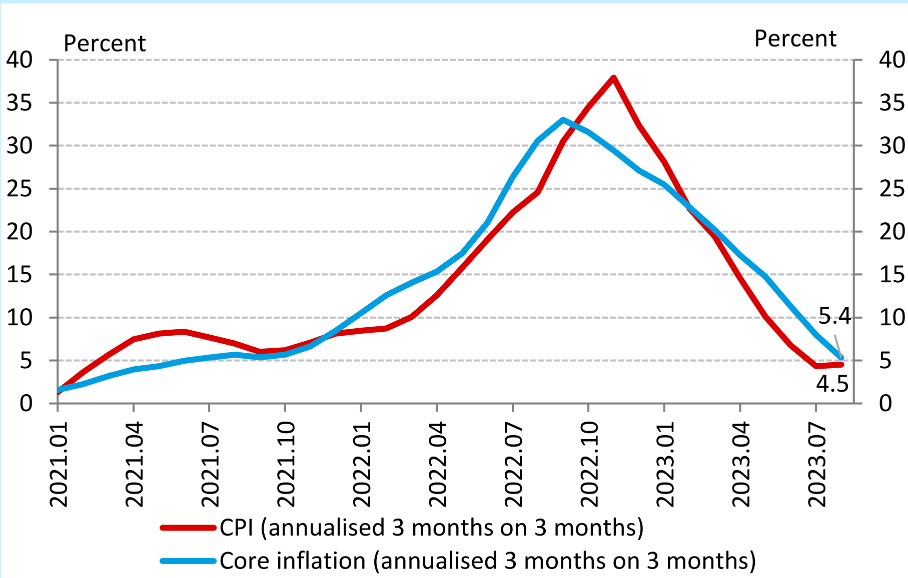


Note: HICP data.

Source: Eurostat.

The significant decline in price dynamics is more visible in the short-base indicators, which track current repricing trends more quickly. According to the short-base indices, repricing declined sharply as the annualised three-month rate of inflation fell to 4.5 percent by August and to 5.4 percent in the case of core inflation (Chart 1-5). In this box, we review the reasons behind domestic disinflation and the sources of the weaker price dynamics. Domestic disinflation has been supported by both internal and external factors, including tighter monetary policy, lower commodity and energy prices on yearly basis, and increasing competition.

Chart 1-5: Annualised 3-month on 3-month price changes for inflation and core inflation

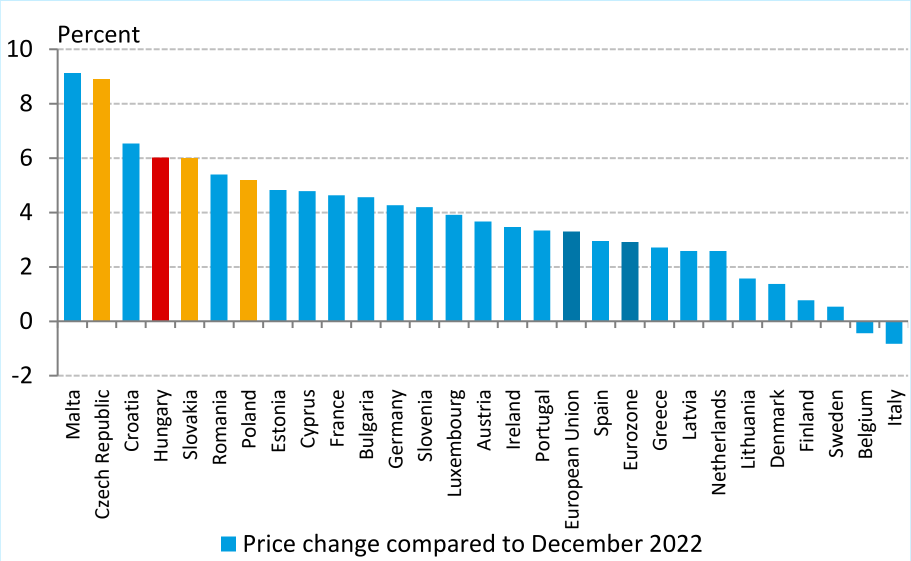


Note: Based on seasonally adjusted data.

Source: HCSO, MNB.

The rate of repricing during this year in Hungary corresponded to the price developments observed in the region. Since December of last year, prices in Hungary rose by 6.0 percent until August, while a higher price increase was observed in Czechia (8.9 percent), a similar price increase in Slovakia, and a smaller price increase in Poland (5.2 percent) (Chart 1-6).

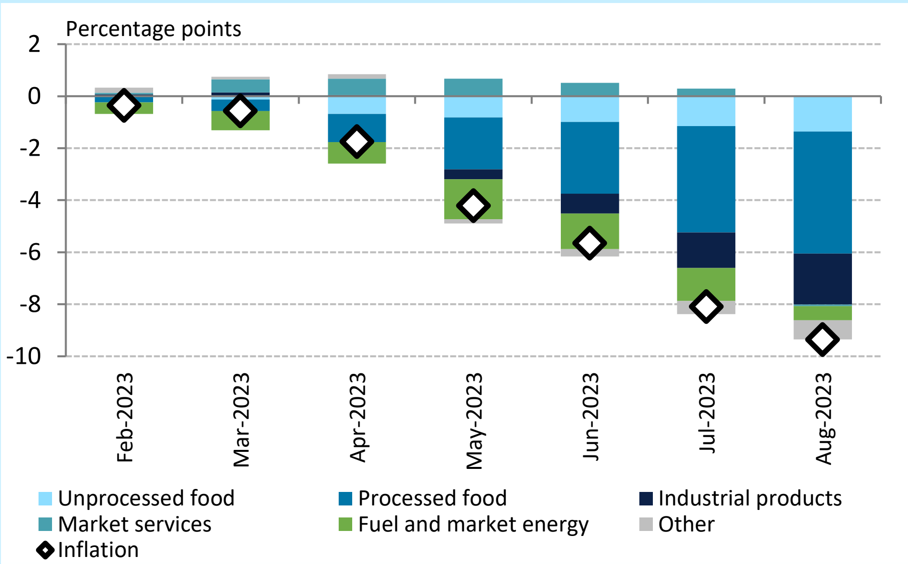
Chart 1-6: Price changes compared to last December in the European Union (August 2023)



Note: HICP data.
Source: Eurostat.

The disinflationary impact of monetary policy has been seen in recent months. The MNB was among the first central banks to take action against inflation, as it started monetary tightening in June 2021 and took effective steps to stabilise the financial markets in autumn 2022. Statistics show that as a result of these measures more than 70 percent of the 9.3-percentage point fall in inflation published by HCSO between January and August was accounted for by the items most sensitive to monetary policy and financial market stability (processed food and industrial goods) (Chart 1-7). Prices of durable industrial goods have not risen since February and prices of processed food had been falling steadily between April and July.

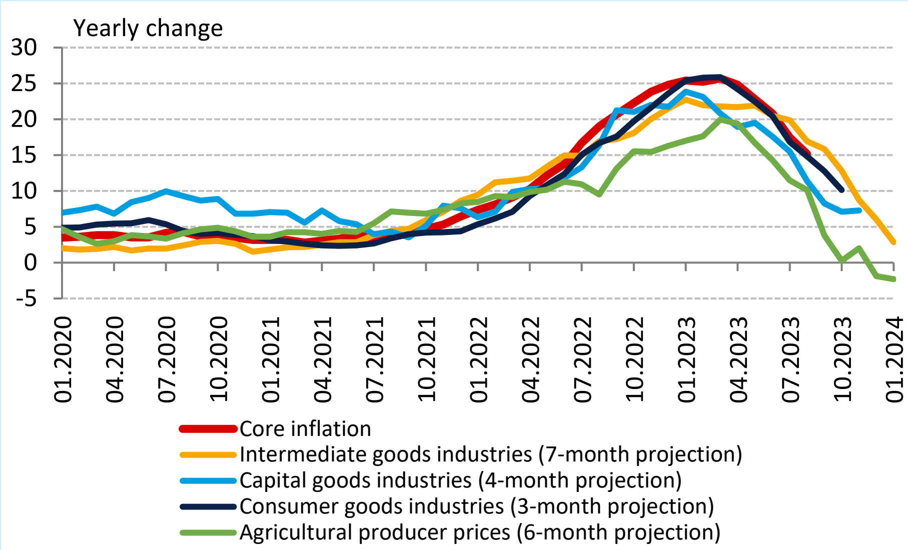
Chart 1-7: Decomposition of the change in inflation from its peak in January 2023



Source: HCSO, MNB

The decline in global commodity, energy and food prices on yearly basis has also contributed to the drop in the producer and consumer price index. These external disinflationary effects have also helped to slow domestic price increases. The rate of increase in producer prices, which measures the evolution of internal production costs, also fell sharply from its peak in October last year. The slowdown in price increases has been broad-based, with the food, manufacturing and energy-producing sectors all reflecting this since the beginning of the year. Between February and July 2023, a decline in the price level of domestic industrial sales was also seen. The evolution of production costs also influences underlying inflation, with experience from recent years showing that core inflation dynamics follow producer price developments with a lag of 3 to 6 months. Against this background, the slowdown in producer price inflation also suggests a further drop in core inflation for the rest of the year (Chart 1-8).

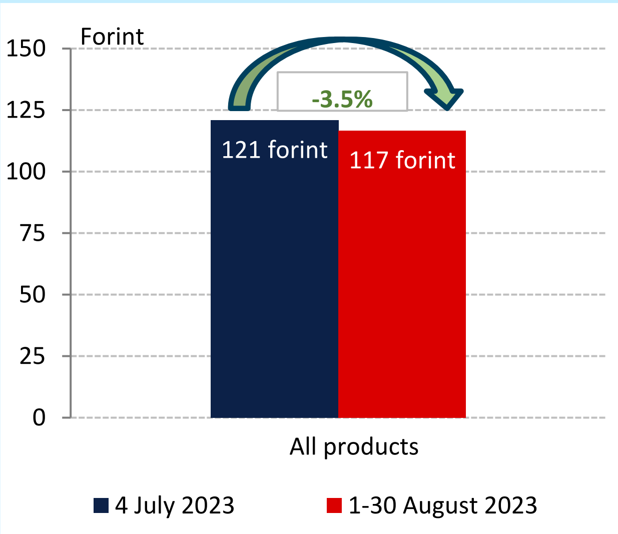
Chart 1-8: Lag between changes in producer prices and core inflation

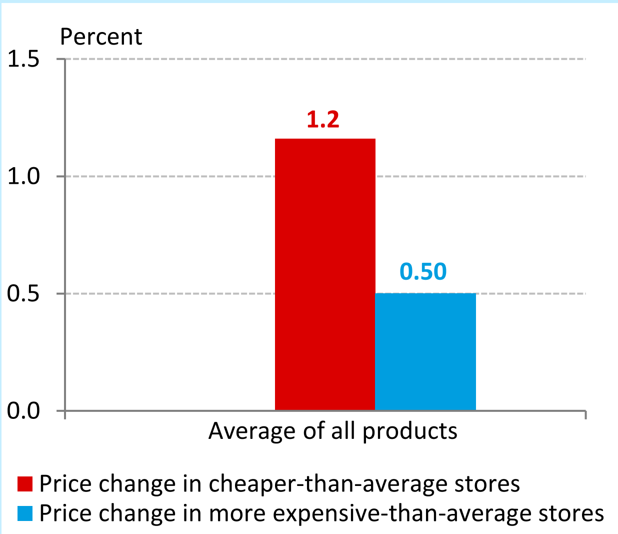


Note: For the producer price time series, the chart shows the forecast for core inflation as affected by agricultural and industrial producer prices.
Source: HCSO, MNB

Stronger price competition between retail chains is also helping to reduce the rate of increase in food prices. For processed foods, we saw higher margins last year and early this year than in the pre-COVID-19 period. However, in recent months there have been several signs of renewed price competition in the retail sector, which has contributed to lower food inflation. Price differences between retail chains decreased in the summer months, and lower price increases were observed at the ‘more expensive’ chains (Chart 1-9). These facts suggest that traders offering higher prices are facing increased price competition and are limited in their ability to impose further price increases.

Chart 1-9: Standard deviation of food prices (left chart) and price variation of products by store type (right chart)



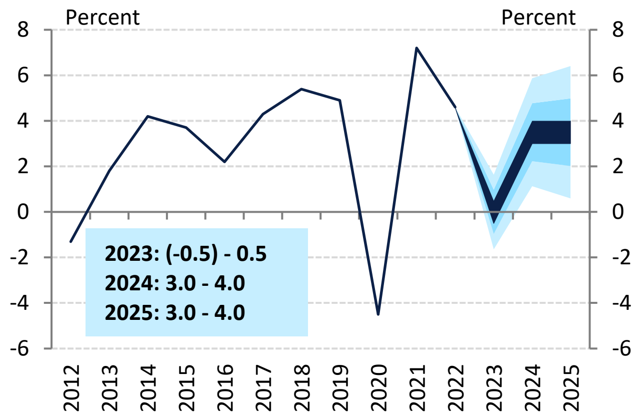


Note: Changes between 4 July 2023 and 1-30 August 2023. Unweighted mean and standard deviation.
Source: arfigyelo.gvh.hu, MNB compilation

1.2 Real economy forecast

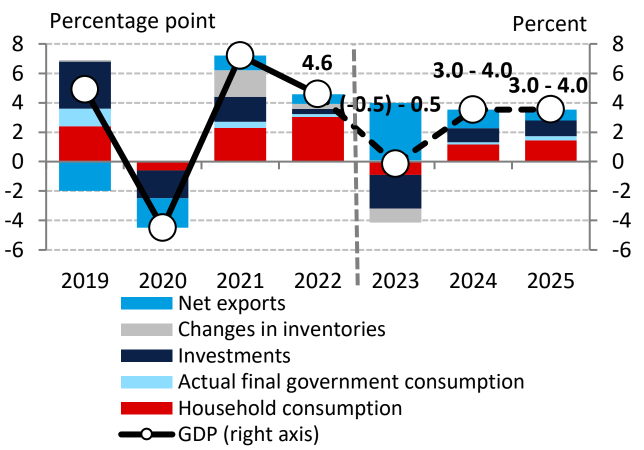
The annual change in GDP is expected to be in the range of (-0.5)–0.5 percent this year, followed by 3.0–4.0 percent in both 2024 and 2025. In the third quarter, growth on a quarterly basis may return again, supported on the one hand by real wages turning positive with the moderation of inflation, and on the other hand by the favourable performance of agriculture. Then, from the fourth quarter, the change in GDP may once again be in the positive range on an annual basis as well. On the whole, household consumption is expected to weaken this year against the backdrop of falling real earnings, while higher costs and an uncertain outlook are expected to result in a reduction of investment projects. The contribution of net exports to growth will remain positive this year, as exports continue to grow and imports fall sharply in line with the decline in domestic demand. GDP growth in 2024 and 2025 is expected to rest on a broader base. With increasing real wages household consumption and investments are expected to rise again. Imports will also expand in line with the recovery in domestic demand, while net exports will make a positive contribution to economic growth over the entire forecast horizon as ongoing FDI investments start production. The nominal investment rate is expected to remain at a high level of around 26–27 percent over the forecast horizon, but significant price effects are also partially behind this.

Chart 1-10: Fan chart of the GDP forecast



Note: Based on unadjusted data.
Source: HCSO, MNB

Chart 1-11: Expenditure side decomposition and forecast of GDP



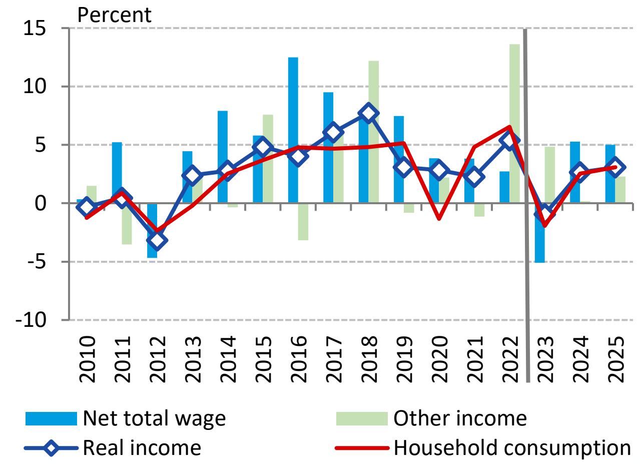
Note: Actual final government consumption includes government consumption and the transfers from government and non-profit institutions. Source: HCSO, MNB

In 2023 Q2, domestic GDP contracted by 2.4 percent on an annual basis. In quarter-on-quarter terms, economic output has fallen for the fourth consecutive quarter. On the production side, the year-on-year downturn in the economy was softened by the good performance of agriculture. Added value from agriculture increased by 67.9 percent, which means that the sector mitigated the economic decline by 1.7 percentage points. On the consumption side, household consumption fell (-3.2 percent), while gross fixed capital formation contracted significantly (-15.6 percent) in year-on-year terms in the second quarter. Similar to the first quarter, the change in inventories had a negative impact on growth once again in the second quarter (-2.3 percentage points). Net exports were the mainstay of the economy in the second quarter, moderating the economic contraction by 5.4 percentage points. However, this was partly due to a decline in imports as domestic demand declined.

In 2023, the GDP volume index is expected to range between (-0.5) and 0.5 percent (Chart 1-10). According to our expectations, GDP may still be close to stagnation on an annual basis in the third quarter. Meaningful growth is projected from the fourth quarter only, also supported by market services. The subdued growth in the third quarter is driven almost exclusively by the positive performance of agriculture. In the fourth quarter, another technical effect then also generates positive developments: the date of the modification of utility cost cuts is removed from the base period, and thus the markedly negative contribution of product taxes and subsidies since the fourth quarter of 2022 ceases (Chart 1-11).

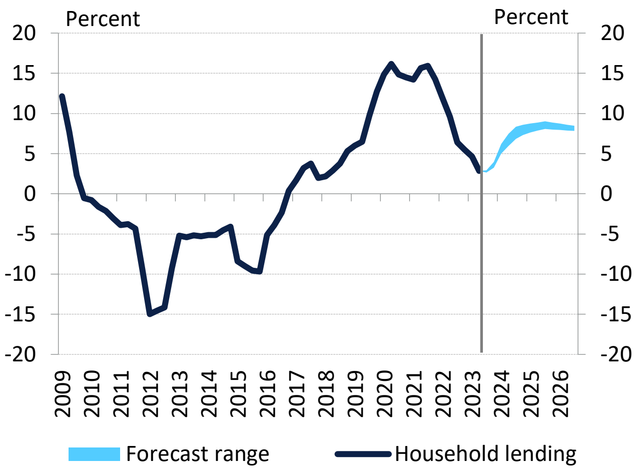
The recovery of GDP in the second half of the year will continue to be driven by positive net exports on the consumption side, while the gradual recovery in domestic demand items may last until early next year. In parallel with lower inflation, real wages will start to rise again in the third quarter, which also helps the economy to gain

Chart 1-12: Annual change in consumption and disposable income items in real terms



Source: HCSO, MNB

Chart 1-13: Forecast for lending to households



Note: Transaction-based, year-on-year data. Q3 2019 data adjusted for transactions of lombard loans.
Source: MNB

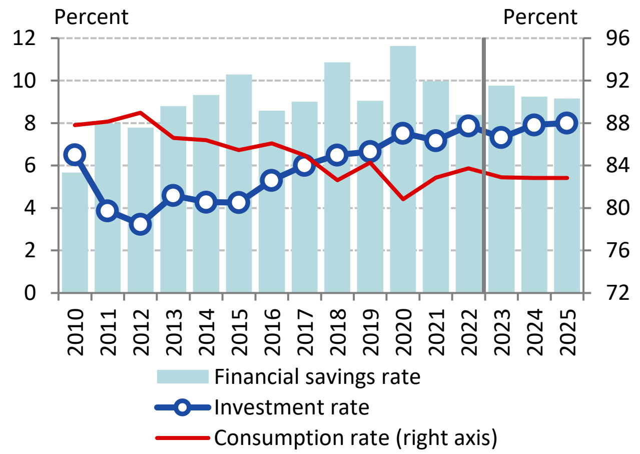
momentum at the end of the year. Consequently, we forecast growth in the third and fourth quarters on a quarterly basis. The contribution of net exports to growth is expected to remain positive for the rest of this year. At the same time, following a significant expansion in the previous year, Hungary's export market share will rise more slowly from this year over the forecast horizon. In 2023, we expect consumption to fall on an annual basis, overall, in line with deteriorating income trends in the high inflation environment. Investment is expected to drop significantly in 2023 due to the curtailment of mainly government-financed projects, higher financing and operating costs and the uncertainties. Domestic demand items are projected to make a positive contribution to annual growth from early next year onwards, which may be supported by a broad base.

The subdued economic performance observed this year may be followed by GDP growth of 3.0–4.0 percent both in 2024 and 2025 (Chart 1-11). The economic rebound is also supported by real household incomes, which started to rise again in line with the steady decline in inflation, the employment rate stabilising at a high level over the forecast horizon and the positive impact of foreign direct investment (FDI) inflows.

In 2023, annual consumption is expected to decline. A turning point in consumption may be reached in the third quarter, when the quarterly rate of growth returns to the positive domain. The deterioration in income is mainly attributable to high inflation, which reduces the purchasing power of wages. This year, we expect a decline in disposable household income in real terms, with a parallel reduction in consumption. The fall in income is partly offset by an increase in the income of self-employed persons and household interest income. From the end of the year, as inflation moderates, the real income of the population will increase as well, with consumption also returning to an upward path (Chart 1-12).

Growth in household loans is expected to accelerate slightly until the end of the year, in line with the recovery in the real economy. Lending to households somewhat exceeded our previous expectations in light of the 2023 Q2 data. However, the volume of new contracts signed during the quarter was 47 percent lower than in the same period of the previous year. Looking ahead, growth in household loans may also be supported by the pick-up in the real economy and, in the short term, by demand expected to be brought forward in view of the tapering of subsidised loan schemes from 2024 (Chart 1-13). Growth in household loans is expected to reach 3–4 percent at the end of 2023 and stabilise at around 8–9 percent from the beginning of 2025 until the end of the forecast horizon.

Chart 1-14: Evolution of households' consumption, investment and financial savings rates as a percentage of disposable income



Source: HCSO, MNB

Table 1-3: Evolution of gross fixed capital formation and investment rate

	2023	2024	2025
Gross fixed capital formation	-8.0	3.6	4.0
Government investments	-14.0	-7.0	1.2
Private investments	-6.6	5.9	4.5
Investment rate	26.7	26.8	27.2

Note: The values represent the middle of the forecast range. Year on year growth for gross fixed capital formation and investment rate as proportion of GDP.
Source: MNB

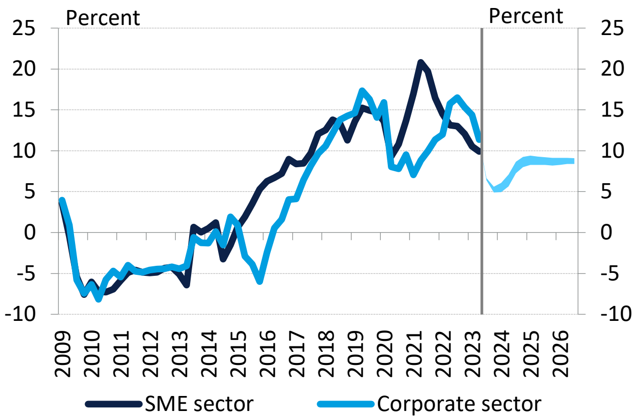
In 2023 H1, year-on-year real income growth dropped to -2.8 percent from 5.4 percent in the previous year. Overall, the slowdown will result in a slight decline in the consumption rate and the investment rate for this year, while the savings rate will rise, mainly owing to stronger demand for government bonds and investment fund shares. Over the forecast horizon, we expect a modest decline in the savings rate and an increase in the investment rate, while the consumption rate is expected to remain stable (Chart 1-14).

The drop in investment in 2023 may be below our June expectations, while we expect expansion in 2024 and 2025 (Table 1-3). The growth rate in 2022 was 1.2 percent. This year, investment from the public, corporate and household sectors will all contribute to the decline, while in 2024, only investment from the public sector is expected to continue to fall. The nominal investment rate is expected to be near the range of 26-27 percent over the forecast horizon, but this is largely due to an increase in the price of capital projects.

The volume of corporate investments are expected to fall in 2023 amid increased costs and uncertainties. In the second quarter, investment in the sectors producing for the external market grew by 3.5 percent on an annual basis. In manufacturing, which has the highest weight among these sectors, investment projects grew by 7.7 percent. At the same time, the sectors producing for the domestic market recorded an overall decline of 12.3 percent compared to the same period of the previous year. On the whole, corporate investment may decline this year amid increased financing and operating costs and uncertainties. Investment expectations have improved once again in the corporate sector recently. In 2024 and 2025, corporate investment is expected to increase, in line with the implementation of the announced larger projects in manufacturing (e.g. battery production).

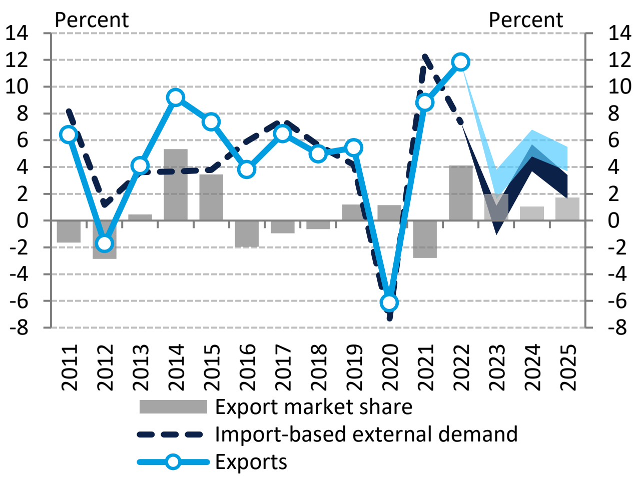
Growth in corporate loans may continue to decline until the end of 2023. The annual rate of growth of corporate loans slightly exceeded our previous expectation, in light of the actual data for 2023 Q2. Throughout the quarter, double-digit nominal corporate loan dynamics were supported by subsidised lending schemes and the increase in working capital financing needs, driven by rising operating and production costs (Chart 1-15). The share of market loans in new corporate loan contracts decreased substantially compared to the end of last year, as the Széchenyi Card MAX+ and Baross Gábor Loan Programmes gathered momentum. On the demand side, while corporate demand for working capital loans may continue to increase in the period ahead, according to our estimates, overall corporate loan dynamics may fall to 5-6 percent by the end

Chart 1-15: Annual changes in lending to non-financial corporations and SMEs



Note: Transaction-based, year-on-year data. The SME sector does not include the self-employed. The growth rate of the overall corporate sector is based on the total amount of outstanding credit to the entire financial intermediary system.
Source: MNB

Chart 1-16: Changes in export market share



Note: Export market share based on the average of the forecast range.
Source: HCSO, MNB

of 2023 against the backdrop of an uncertain environment, before stabilising at 8–9 percent from the end of 2024 until the end of the forecast horizon.

The volume of public investment will decline in both 2023 and 2024. According to the available information, the volume of government investment is expected to fall by 14.0 percent in 2023 and by 7.0 percent in 2024, and then increase by 1.2 percent in 2025. Household investment is expected to drop significantly in 2023. After that, however, it is expected to grow. The volume of housing loans issued in the second quarter was 67 percent below the level seen in 2022 Q2, which indicates a reduction in household investment this year.

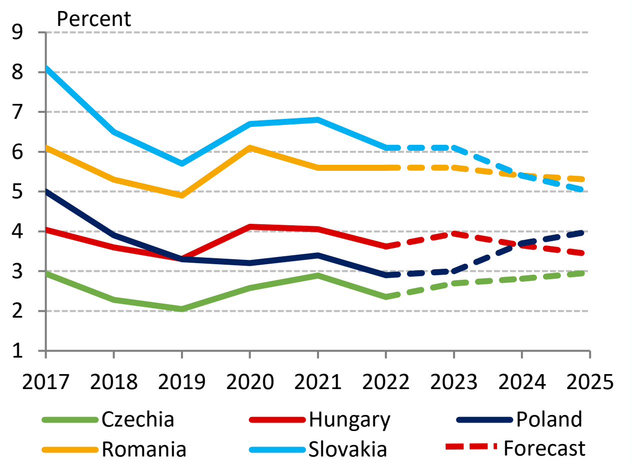
In 2023, domestic exports will increase, and accordingly the contribution of net exports to growth will continue to be significant, in conjunction with falling imports. Export volumes declined for several product groups in the first months of the year, but exports of machinery and transport equipment – which include road vehicles and battery production, and account for nearly 60 percent of goods exports – remained positive, enabling continued growth in goods exports in 2023 Q2. However, exports of services have fallen sharply owing to one-off effects, which may continue to restrain export growth in the latter half of the year. Growth in domestic exports will be supported over the long term by FDI in the manufacturing sector. A significant part of these projects is related to battery manufacturing as nearly HUF 3,250 billion of greenfield investment projects were announced last year and nearly HUF 1,500 billion were announced in the first half of this year, making battery factories an increasingly significant part of total FDI. Once the investments have been completed, battery factories, which are expected to produce a significant part of their output for export, will help to support long-term export growth, despite the turbulence in the external environment.

Imports fell sharply in the second quarter, in line with a decline in domestic demand items, mainly domestic investment, which was significantly higher than previously expected. The decline in imports is expected to persist in the third quarter, while imports may expand slightly in the final quarter of the year, in line with the anticipated pick-up both in the external economic environment and domestic economic activity towards the end of the year. While exports are subject to significant downside risks, net exports may make a positive contribution to domestic growth in 2023 even as exports slow. However, the significant expansion in Hungary's export market share seen in 2022 will decelerate this year and in 2024 before picking up substantially from 2025 again (Chart 1-16).

1.3 Labour market forecast

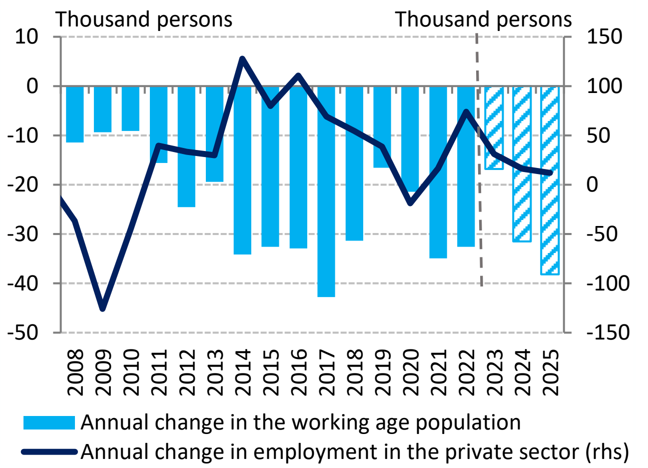
Labour demand remains strong, with employment expected to grow throughout 2023 on the back of the recovery in economic performance expected in the second half of the year, while employment will rise at a more moderate pace in 2024. Employment in the private sector is expected to grow at a rate between 0.8 and 1.0 percent in 2023, between 0.2 and 0.7 percent in 2024 and between 0.0 and 0.6 percent in 2025. The unemployment rate is expected to range between 3.9 and 4.0 percent this year, between 3.5 and 3.8 percent next year and between 3.1 and 3.8 percent in 2025. Wage growth in early 2023 was driven by a significant increase in the minimum wage at the beginning of the year, inflation expectations and historically high labour market tightness, while the accelerating decline in inflation and the resulting increase in real wages will lead to more subdued wage growth in the latter half of the year. In the private sector, average wages are expected to rise between 15.6 and 15.9 percent this year.

Chart 1-17: Change in the unemployment rate



Note: Data on Hungary based on the midpoint of the forecast range. Czech data refer to those aged 15–64.
Source: Eurostat, HCSO, MNB, CNB, NBP, NBS, IMF

Chart 1-18: Annual change in the working age population and the number of persons employed in the private sector



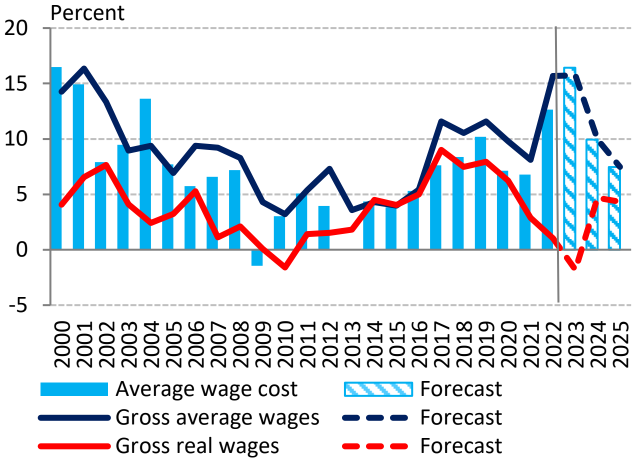
Note: Population aged 15–74. Based on the midpoint of the forecast range.
Source: Eurostat, HCSO, MNB

Labour demand remains robust. Labour market tightness is approaching the highest pre-crisis values and the number of new job vacancies rose again in the second quarter. In recent quarters, the slowdown in economic performance has had different impacts on labour demand, depending on the sector and corporate headcount categories. According to the August ESI survey monitoring employment expectations, looking at the key sectors, in trade and other services the majority of companies expect their workforce to increase in the near future, while most companies in manufacturing and construction expect the number of employees to decrease over the next three months.

With economic output expected to pick up in the second half of the year, the number of unemployed is expected to gradually decline from the second half of the year. The number of people employed in the national economy rose to an all-time high in 2023 Q2, and labour force participation has also been on an upward trend since mid-2020. The seasonally adjusted unemployment rate stood at 4.0 percent in 2023 Q2, reflecting a slight increase compared to the previous quarter, but was still low in an international comparison. We forecast the unemployment rate to fall gradually over the rest of the year and throughout 2024, in line with the economic recovery, to reach pre-pandemic levels in the course of 2025. We expect the unemployment rate to be in the range of 3.9 to 4.0 percent this year, 3.5 to 3.8 percent in 2024 and 3.1 to 3.8 percent in 2025 (Chart 1-17).

The number of employees in the private sector is expected to increase by 0.8–1.0 percent this year. Labour market tightness and employment have not responded significantly to the decline in economic performance in recent quarters. In view of the recovery from the economic downturn, we expect employment to continue to grow at a moderate rate for the rest of the year. The number of persons employed in the private sector is expected to advance by 0.8 to 1.0 percent in 2023, 0.2 to 0.7 percent in 2024 and 0.0 to 0.6 percent in 2025 (Chart 1-18).

Chart 1-19: Annual changes in gross average wages and average labour cost in the private sector



Note: Based on the midpoint of the forecast range.
Source: HCSO, MNB

Nominal wage dynamics for 2023 will reach the high levels seen last year. Wage growth in the first and second half of this year show different dynamics. In the first half of the year, wage developments were determined by the tight labour market, significant increases in the minimum wage and the guaranteed minimum wage at the beginning of the year, as well as inflation expectations. The increase in the minimum wage was already included in the wage index in the first quarter, while some corporate wage increases were realised the second quarter. The higher wage growth in the first half of the year was also supported by a share of bonus payments higher than the historical average. The accelerating decline in inflation and the fact that real wages are to turn positive in the second half of the year will have a moderating effect on wage growth, offsetting the higher wage dynamics of the first two quarters. We forecast annual wage growth in the private sector to range between 15.6 and 15.9 percent in 2023, between 9.5 and 10.5 percent in 2024, and between 6.9 and 8.1 percent in 2025 (Chart 1-19).

Table 1-4: Changes in projections compared to the previous Inflation Report

	2022	2023		2024		2025	
	Actual	Forecast					
		Previous	Current	Previous	Current	Previous	Current
Inflation (annual average)							
Core inflation	15.7	17.7 - 19.6	18.1 - 18.6	4.6 - 7.0	4.4 - 6.8	3.0 - 3.5	3.0 - 3.5
Core inflation excluding indirect tax effects	15.6	17.7 - 19.6	18.1 - 18.6	4.6 - 7.0	4.4 - 6.8	3.0 - 3.5	3.0 - 3.5
Inflation	14.5	16.5 - 18.5	17.6 - 18.1	3.5 - 5.5	4.0 - 6.0	2.5 - 3.5	2.5 - 3.5
Economic growth							
Household final consumption expenditure	6.5	(-2.1) - (-1.3)	(-2.0) - (-1.8)	2.2 - 3.2	2.1 - 2.9	2.6 - 3.6	2.6 - 3.6
Final consumption of government[1]	0.9	0.0 - 1.8	0.2 - 0.6	0.7 - 1.9	0.2 - 1.4	0.9 - 2.0	0.9 - 2.0
Gross fixed capital formation	1.2	(-5.9) - (-3.0)	(-8.5) - (-7.5)	2.7 - 5.6	2.1 - 5.1	2.6 - 5.5	2.6 - 5.5
Domestic absorption	3.9	(-2.7) - (-1.5)	(-4.0) - (-3.8)	2.1 - 3.3	1.8 - 2.8	2.3 - 3.5	2.3 - 3.5
Exports	11.8	3.8 - 6.1	1.6 - 2.2	5.2 - 7.2	4.8 - 6.8	3.7 - 5.4	3.7 - 5.4
Imports	11.1	0.6 - 2.8	(-2.6) - (-2.0)	3.5 - 5.7	3.3 - 5.5	2.7 - 4.7	2.7 - 4.7
GDP	4.6	0.0 - 1.5	(-0.5) - 0.5	3.5 - 4.5	3.0 - 4.0	3.0 - 4.0	3.0 - 4.0
Labour productivity[2]	2.8	0.7 - 1.3	(-0.3) - (0.0)	3.1 - 4.4	2.7 - 3.8	2.4 - 3.8	2.4 - 3.8
External balance[3]							
Current account balance	-8.1	(-2.8) - (-1.8)	(-1.1) - (-0.1)	(-0.8) - (0.4)	0.4 - 1.6	0.2 - 1.6	1.1 - 2.5
Net lending	-6.0	(-0.4) - 0.6	1.1 - 2.1	1.2 - 2.4	2.1 - 3.3	1.8 - 3.2	2.7 - 4.1
Government balance[3]							
ESA balance	-6.2	-3.9	-5.2	-2.9	-2.9	-1.9	-1.9
Labour market							
Whole-economy gross average earnings[4]	17.4	12.7 - 13.4	13.4 - 13.7	9.7 - 10.9	10.0 - 11.2	7.4 - 8.7	7.4 - 8.7
Whole-economy employment	1.3	0.1 - 0.4	0.5 - 0.6	(-0.2) - 0.4	(-0.1) - 0.5	(-0.1) - 0.6	(-0.1) - 0.6
Private sector gross average earnings[4]	15.7	14.7 - 15.5	15.6 - 15.9	9.1 - 10.1	9.5 - 10.5	6.9 - 8.1	6.9 - 8.1
Private sector employment	2.1	0.4 - 0.7	0.8 - 1.0	0.2 - 0.7	0.2 - 0.7	0.0 - 0.6	0.0 - 0.6
Unemployment rate	3.6	3.6 - 3.7	3.9 - 4.0	3.1 - 3.6	3.5 - 3.8	2.9 - 3.7	3.1 - 3.8
Private sector nominal unit labour cost	9.9	13.3 - 14.6	15.2 - 15.7	4.7 - 6.3	5.1 - 6.6	4.1 - 5.9	4.1 - 5.9
Household real income[5]	5.4	(-1.3) - (-0.5)	(-1.0) - (-0.8)	2.3 - 3.5	2.1 - 3.1	2.5 - 3.7	2.5 - 3.7

[1] Includes government consumption and the transfers from government and non-profit institutions.
[2] Whole economy, based on national accounts data.
[3] As a percentage of GDP.
[4] For full-time employees.
[5] MNB estimate.

Table 1-5: MNB baseline forecast compared to other forecasts

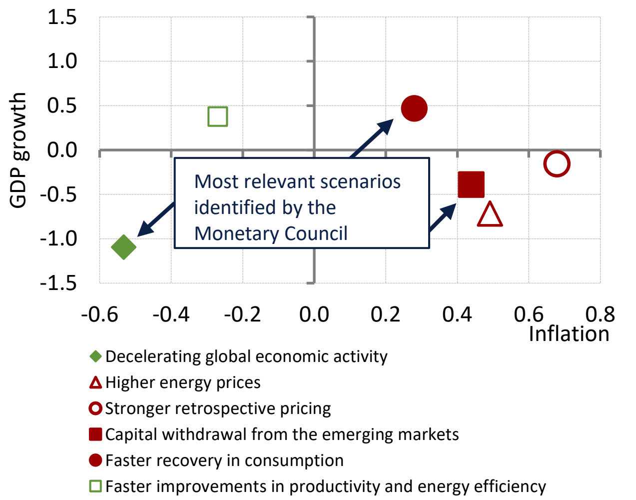
	2023	2024	2025
Consumer Price Index (annual average growth rate, %)			
MNB (September 2023)	17.6 - 18.1	4.0 - 6.0	2.5 - 3.5
Consensus Economics (September 2023)[1]	16.9 - 17.8 - 18.7	3.9 - 5.4 - 7.0	
European Commission (May 2023)[2]	16.4	4.0	
IMF (April 2023)	17.7	5.4	4.2
OECD (June 2023)	19.2	5.4	
Reuters survey (September 2023)[1]	17.5 - 17.9 - 18.1	3.9 - 5.5 - 7.0	3.3 - 4.0 - 5.7
GDP (annual growth rate, %)			
MNB (September 2023)	(-0.5) - 0.5	3.0 - 4.0	3.0 - 4.0
Consensus Economics (September 2023)[1]	(-1.1) - (-0.4) - 0.2	1.0 - 2.5 - 3.2	
European Commission (May 2023)[2]	0.5	2.8	
IMF (April 2023)	0.5	3.2	3.3
OECD (June 2023)	0.0	2.5	
Reuters survey (September 2023)[1]	(-1.0) - (-0.5) - 0.0	2.5 - 3.0 - 4.4	2.9 - 3.4 - 4.3
Current account balance[3]			
MNB (September 2023)	(-1.1) - (-0.1)	0.4 - 1.6	1.1 - 2.5
European Commission (May 2023)[2]	-3.5	-2.8	
IMF (April 2023)	-4.6	-1.9	-0.4
OECD (June 2023)	-2.0	-0.7	
Budget balance (ESA 2010 method)[3]			
MNB (September 2023)	-5.2	-2.9	-1.9
Consensus Economics (September 2023)[1]	(-6.5) - (-4.7) - (-3.9)	(-4.3) - (-3.5) - (-2.6)	
European Commission (May 2023)[2]	-4.0	-4.4	
IMF (April 2023)	-3.9	-2.5	-2.9
OECD (June 2023)	-4.2	-4.0	
Reuters survey (September 2023)[1]	(-5.0) - (-4.5) - (-3.9)	(-4.0) - (-3.5) - (-3.0)	(-3.3) - (-2.9) - (-2.5)
Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, %)			
MNB (September 2023)	(-0.3) - 0.9	2.0 - 2.9	1.9 - 2.7
ECB (September 2023)	0.7	1.0	1.5
Consensus Economics (September 2023)[1]	0.7	1.4	
European Commission (September 2023)[2]	0.4	1.3	
IMF (July 2023)[2]	0.6	1.6	2.3
OECD (September 2023)[2]	0.6	1.4	

[1] For Reuters and Consensus Economics surveys, in addition to the average value of the analysed replies, we also indicate the lowest and the highest values to illustrate the distribution of the data.
[2] Values calculated by the MNB; the projections of the named institutions for the relevant countries are adjusted with the weighting system of the MNB, which is also used for the calculation of the bank's own external demand indices. Certain institutions do not prepare forecast for all partner countries.
[3] As a percentage of GDP.
Source: Consensus Economics, ECB, European Commission, IMF, OECD, Reuters poll, MNB

2. Effects of alternative scenarios on our forecast

Based on the Monetary Council's risk assessment, the baseline scenario is surrounded by two-way inflation and growth risks. A faster recovery in consumption points towards higher, while a decelerating global economic activity and a possible capital withdrawal from the emerging markets point to lower economic growth compared to the baseline scenario. In the latter alternative scenario, as well as the increase in room for manoeuvre for pricing alongside a rapid rebound of domestic demand may raise inflation in comparison to the baseline scenario, while a decelerating global economic activity may cause a generally lower inflation environment. Along with the highlighted scenarios, the Monetary Council discussed additional alternative scenarios, including ones involving higher energy prices, stronger retrospective pricing and a faster improvement in productivity and energy efficiency.

Chart 2-1: Risk map: effect of alternative scenarios on the baseline forecast



Note: The risk map presents the average difference between the inflation and growth path of the alternative scenarios and the baseline forecast over the monetary policy horizon. The red markers represent tighter and the green markers represent looser monetary policy than in the baseline forecast.
Source: MNB

Decelerating global economic activity

GDP growth in the euro area continued to slow in 2023 Q2. Year-on-year economic growth amounted to 0.5 percent in the euro area, 0.4 percent in the European Union, 2.6 percent in the US and 6.3 percent in China. The economy of Hungary's main trading partner, Germany, contracted by 0.1 percent. In quarter-on-quarter terms, economic output increased in 14 of the EU Member States, stagnated in Germany and Portugal, and declined in Hungary and 10 other Member States.

Growth expectations for 2023 are mixed. Bloomberg analysts now expect the global economy to grow by 2.7 percent in 2023, versus a forecast of 2.6 percent in June. Analysts project the EU growth rate to remain unchanged at 0.7 percent. Growth expectations for the US rose to 2.0 percent, while growth in China is expected to be lower, at 5.1 percent.

The global economic outlook remains divided. For this year as a whole, output growth in the developed countries is expected to decelerate from 2.7 percent to 1.5 percent, while the emerging countries are expected to grow at a rate of 4.0 percent, similar to last year, according to the IMF's World Economic Outlook forecast in July. The easing energy crisis in Europe points to an improvement in the economic outlook for the continent, but at the same time, the ongoing Russia-Ukraine war and the protracted high inflation environment pose downside risks to growth.

In the **risk scenario assuming a decelerating global economic activity**, global growth is more moderate compared to the baseline scenario. The global economic slowdown, especially in China, weighs on the growth prospects of the German export sector. The slowdown in economic activity in the advanced economies and stagnating German growth hamper domestic export performance through a decline in external demand, thus suggesting a slowdown in GDP growth. Additionally, the inflation path is assumed to be lower than in the baseline scenario.

Capital withdrawal from the emerging markets

Looking at recent months, global investor sentiment has been shaped primarily by expectations regarding the monetary policy actions of major central banks and incoming macroeconomic data. Accordingly, an initial improvement in sentiment in the financial markets was followed by deterioration. On the whole, risk indicators declined, but then slightly rose towards the end of the period. Developments in confidence indicators also reflect deterioration in investor sentiment.

Both the Federal Reserve (Fed) and the European Central Bank (ECB) continued to tighten monetary conditions, while the Polish central bank cut its policy rate by 75 basis points. The Fed raised the target range of the benchmark rate by 25 basis points in July, while the ECB tightened by 25 basis points in June, August and September. At their next meetings, the Fed and the ECB will take data-driven decisions. Both market pricing and policymakers' statements suggest that the two central banks are nearing the end of their rate hike cycle.

While a turnaround in inflation has taken place in both the US and the euro area, core inflation indicators suggest a prolonged period of disinflation, which implies persistently high interest rates for both central banks.

Our alternative scenario assumes higher global inflation. As a result, the monetary policy of the major central banks will remain tight for a longer period, resulting in relatively looser monetary conditions for Hungary. In that environment, taking into account country-specific vulnerabilities (such as inflation, fiscal deficits), risk aversion vis-à-vis the emerging markets, including Hungary, may increase more persistently and may be more pronounced compared to the baseline scenario. This could result in significant capital withdrawal and a further rise in inflation.

Faster recovery in consumption

In 2023 H1, the drop in real wages due to the high inflation environment and more cautious consumer choices resulted in lower consumption. Looking ahead, alongside the robustness of labour market developments and the path of real wages, the evolution of consumer confidence will determine the dynamics of the recovery in domestic consumption.

The labour market in Hungary remains historically tight. According to the Labour Force Survey (LFS), in the May-July period, the average number of employees was 4.728 million. Thus, employment in the national economy increased by 29,000 compared to the same period of the previous year. In May–July, the average number of people employed in the primary labour market increased by 22,000 and the number of people working abroad increased by 14,000, while the number of public workers decreased by 7,000 on an annual basis.

Favourable labour market developments provide a good basis for a rapid recovery in consumption. Looking ahead, the baseline scenario assumes that the labour market remains stable and that domestic consumption will slowly pick up as real wages rise due to lower inflation.

The alternative path expects consumer confidence to improve as inflation falls, leading to a faster recovery in domestic consumption. The pick-up in consumption is consistent with higher growth and inflation paths than in the baseline scenario.

Further risks

In addition to the highlighted scenarios, the Monetary Council considered three more alternative paths.

The alternative scenario featuring higher energy prices implies global supply problems and a protracted wartime environment, which would lead to a less favourable external position for Hungary compared to the baseline scenario. Potential turmoil in the commodities market and materialisation of the related risks put upward pressure on global inflation. According to this alternative scenario, the external inflation environment will thus be higher than expected, with a ripple effect in domestic prices.

In the **risk scenario assuming stronger retrospective pricing**, the risk of second-round inflationary effects will be realised, rendering inflation more persistent. This could be triggered primarily by an increase in the retrospective elements in businesses' pricing decisions, which would have significant second-round inflationary impacts on the economy. This scenario suggests higher inflation compared to the baseline scenario.

According to a risk scenario assuming a faster improvement in productivity and energy efficiency, the shift to an intensive growth model further stimulates growth in the domestic economy, mainly on the supply side, through improved competitiveness. Competitiveness may improve to a larger degree compared to the baseline scenario if **more of the 330 steps to improve**

competitiveness are carried out, and if energy efficiency improvements are enhanced by implementing the 144 points of the discussion paper 'Sustainable Balance and Convergence', accelerating a green transition. Fulfilment of the targeted measures will significantly improve productivity, leading to a lower cyclical position in the domestic economy. This is consistent with a lower inflation path and higher economic output.

3. Macroeconomic overview

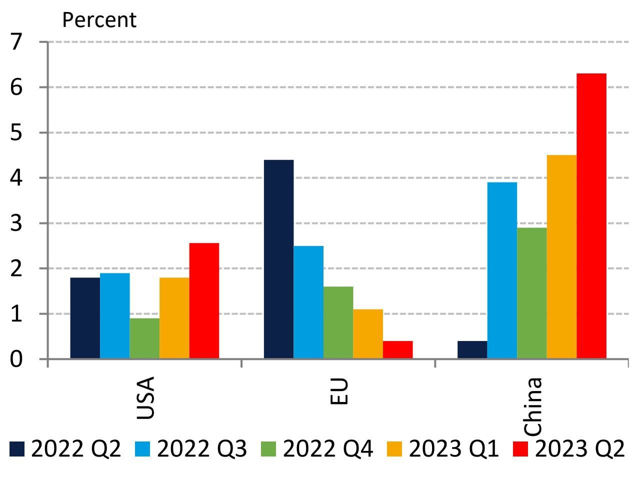
3.1. Assessment of international macroeconomic trends

Growth in the EU economies continued to weaken in the second quarter. With ongoing disinflation, real wages declined in most Member States and household consumption also fell significantly. Despite the slack economic activity, the labour market in the EU remained tight. Growth in the US economy was higher than expected, while Chinese growth fell short of expectations, due to the real estate sector crisis and falling exports. The ongoing war between Russia and Ukraine and the general rise in geopolitical tensions continue to pose a significant risk to global economic growth and in particular to the economic outlook in Europe. In the US, the Fed left the target range for the policy rate unchanged in September, after it tightened monetary conditions again in July. The Fed has also continued with the balance sheet reduction it began in June 2022. The ECB continued raising its interest rates in September and also noted that the base rates had reached an adequately restrictive level. Additionally, starting from July, it stopped reinvesting maturing securities purchased under the APP programme. In the region, the Polish central bank cut its policy rate by 75 basis points to 6.00 percent in September, while the Czech and Romanian central banks left their base rates at the same level.

3.1.1. International economic trends

In 2023 Q2, economic growth in the EU continued to decelerate (Chart 3-1). Compared to the preliminary expectations, the European economies showed mixed performance. In year-on-year terms, the EU economy grew by 0.4 percent and the euro area economy grew by 0.5 percent in 2023 Q2 on a seasonally and calendar adjusted basis. In quarter-on-quarter terms, GDP contracted in 10 of the 27 countries in the European Union. Output in Germany, Hungary's main trading partner, fell by 0.1 percent on an annual basis in 2023 Q2. Of the countries in the region, GDP declined in Czechia (-0.4 percent) and Poland (-1.4 percent), while it grew in Slovakia (+1.3 percent) compared to the same prior-year period.

Chart 3-1: GDP growth in the world's leading economies

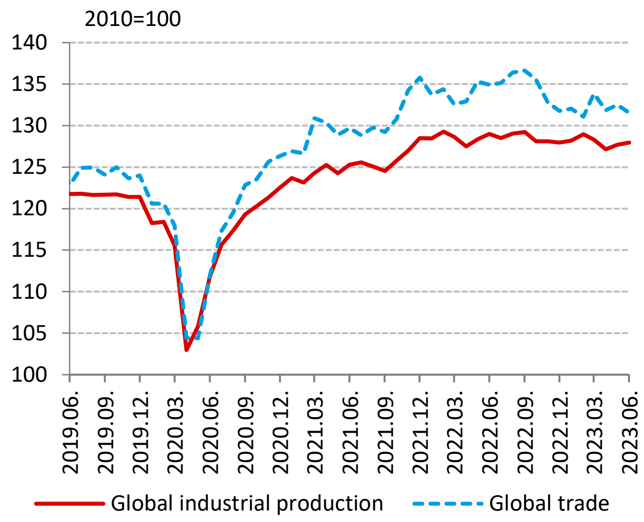


Note: In case of the EU, the calculation is based on seasonally and working day adjusted data.
Source: Trading Economics, FRED, Eurostat

In the US, the expansion of output accelerated on an annual basis, with growth exceeding the expectations. The US economy grew at an annual rate of 2.6 percent, marking the highest growth since the first quarter of last year, while on a quarterly basis it grew by 0.5 percent. Growth continued to be supported by stronger household consumption in the second quarter and rising business investment, driven by substantial government programmes.

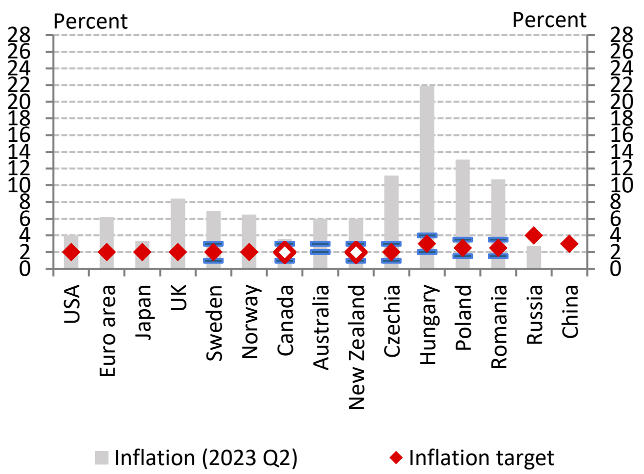
China's economy grew more slowly than expected in the second quarter, reflecting a slowdown in the recovery after the lifting of lockdown restrictions. In China, the annual growth rate of 6.3 percent was significantly higher than in the previous quarter, while on a quarterly basis, output expanded by 0.8 percent. However, incoming data suggest a slowdown in the latter half of the year, and in July and August the annual growth rate of industrial production was significantly lower than in the second quarter, while exports have been falling since April. Due to the protracted

Chart 3-2: Development of global industrial production and global trade



Note: Based on seasonally adjusted data.
Source: CPB

Chart 3-3: Inflation targets of central banks and actual inflation



Note: The blue lines represent the inflation control range in Australia, Canada and New Zealand, while in other countries they mark a permissible fluctuation band. In Canada and New Zealand the mid-point of the target band is accentual, which is marked by empty diamond.
Source: OECD, FRED, National Institute of Statistics Romania, Statistics Sweden, Federal State Statistics Service

crisis in the real estate sector, real estate investment has fallen significantly in year-on-year terms this year.

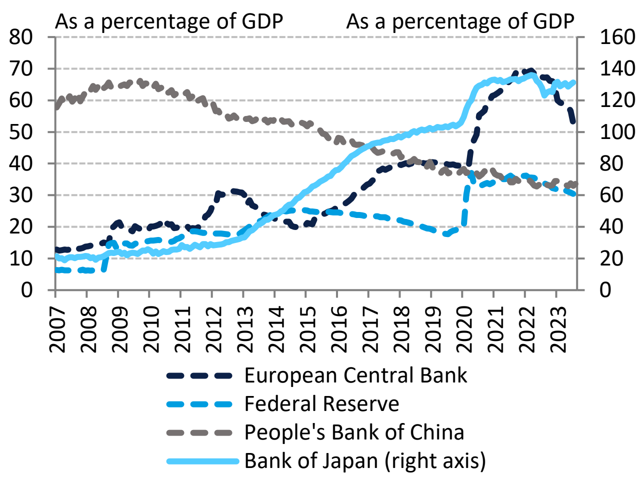
Uncertainties about the Chinese economy, the ongoing Russia-Ukraine war and the general rise in geopolitical tensions continue to represent a major risk to the international economic outlook. Global industrial production stagnated in the second quarter, while trade declined slightly and was below the prior-year level, despite the normalisation of supply chains and a substantial reduction in world commodity prices compared to the previous year (Chart 3-2). In recent months, the global economy has also been supported by lower inflation rates and a favourable labour market situation. At the same time, however, higher interest rates, sharply lower real wages and falling household consumption, an expected slowdown in Chinese growth and the protracted war between Russia and Ukraine continue to pose risks, leaving the global and European growth outlook unchanged compared to the June forecast. International business confidence indices show that consumer confidence in the EU economies remains at very low levels and business sentiment has deteriorated. Purchasing managers' indices for the services sector fell and the manufacturing sector outlook remained pessimistic in the second quarter, as the level of global new orders dropped.

3.1.2. International monetary policy, inflation and financial market developments

While global inflation has slowed in recent months, there has only been a slight decline in core inflation. In most developed economies, inflation rates remain well above the central banks' targets (Chart 3-3). The Fed left the target range for the policy rate unchanged in September, after tightening monetary conditions again in July. The ECB raised interest rates further in September, but indicated that policy rates had reached a sufficiently restrictive level. In the region, the Polish central bank cut its policy rate by 75 basis points to 6.00 percent in September, while the Czech and Romanian central banks kept their base rates at the same level.

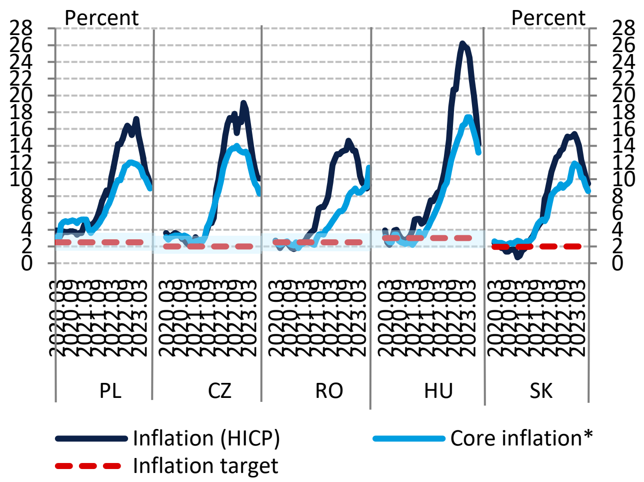
Inflation in the US rose, while core inflation gradually declined. The CPI inflation index advanced from 3.0 percent in June to 3.2 percent in July and then to 3.7 percent in August. In parallel, core inflation gradually declined from 4.8 percent in June to 4.7 percent in July and then to 4.3 percent in August. The PCE inflation index fell from 3.8 percent in May to 3.0 percent in June and then rose to 3.3 percent in July. In terms of the structure of inflation, services currently have the highest contribution. In the

Chart 3-4: Central bank balance sheet totals in developed countries



Source: Databases of central banks, Eurostat, FRED

Chart 3-5: Inflation and core inflation in the region



Note: Annual change, percent. *In the case of core inflation, we use the definition of the Eurostat (inflation excluding energy, food, alcohol and tobacco). The blue area indicates the tolerance band around the inflation targets.
Source: Eurostat

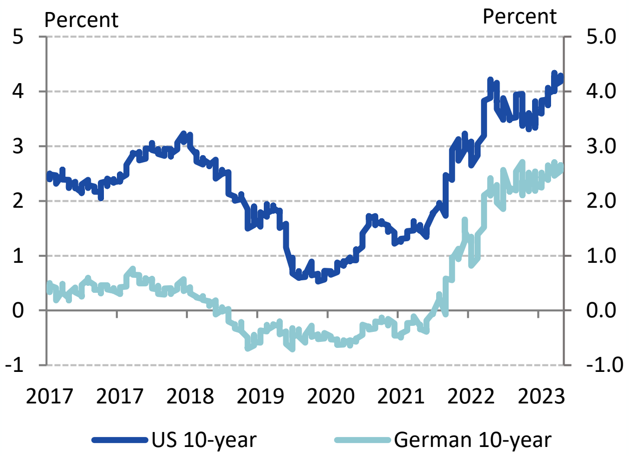
second half of the year, base effects do not support a decline in the annual rate of inflation.

In the US, the Federal Reserve left the target range for the federal funds rate unchanged in September after raising it by 25 basis points to 5.25–5.50 percent in July. Following the September decision, Fed Chairman Jerome Powell said that the pace of tightening would continue to be data-dependent. Keeping interest rates at their current level will allow policymakers additional time to assess incoming data. Currently, policymakers expect one more 25-basis point increase later this year. The liquidity-providing measures introduced in March 2023 in response to the financial turmoil led to a temporary increase of USD 300 billion in the Fed's balance sheet, which then gradually declined to USD 8,151 billion in September 2023, or 30.4 percent of GDP (Chart 3-4).

Inflation in the euro area fell from 5.5 percent in June to 5.3 percent in July and then to 5,2 percent in August. Core inflation held its June level of 5.5 percent in July, before falling to 5.3 percent in August. According to the ECB's September forecast, inflation is projected to be 5.6 percent in 2023, 3.2 percent in 2024 and 2.1 percent in 2025, which – compared to the previous forecast – suggests higher inflation this year and next year, and somewhat lower inflation in 2025.

The ECB continued its rate hike cycle and starting from July it stopped reinvesting maturing securities purchased under the APP programme. At its July and September rate-setting meeting, the central bank raised its policy rates by 25 basis points each time. The ECB raised interest rates again in September, but indicated that policy rates had reached a sufficiently restrictive level. The ECB justified its decision in September by noting that, although inflation had continued to decline, looking ahead it is still expected to remain too high for too long. Earlier, the central bank had already decided to set the interest rate paid on minimum reserves at 0 percent, with effect from 20 September 2023. After the rate-setting meeting, Christine Lagarde, President of the ECB, said that the central bank will determine the appropriate level and timing of monetary policy restriction in the light of incoming data. In addition, the president indicated that there are no plans to actively sell securities purchased under the asset purchase programmes. From July 2023, the reinvestment of assets purchased under the APP programme was discontinued, resulting in a faster decline in the asset portfolio. Maturing securities purchased under the PEPP programme will be reinvested by the central bank until at least the end of 2024. In September

Chart 3-6: US and German 10-year government bond yields



Source: Bloomberg

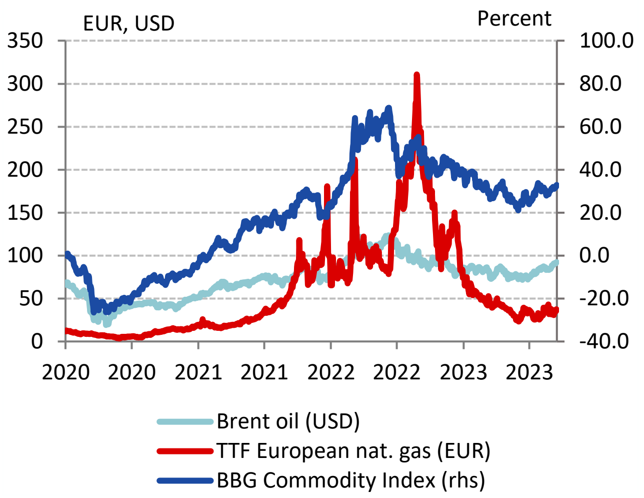
2023, the ECB's balance sheet total amount to EUR 7,153 billion, or 51.7 percent of GDP (Chart 3-4).

In the previous quarter, the Bank of Japan left its -0.1 percent interest rate on excess reserves unchanged, but revised its yield curve control policy at its July rate-setting meeting. Although the central bank did not change the tolerance band of ±50 basis points on the 10-year government bond market yield target of 0 percent, the decision means that while the central bank has been accepting bids at a fixed rate of 0.5 percent in its daily purchases, it will start purchasing securities at 1.0 percent from July. This pushed Japanese 10-year government bond yields above 50 basis points. The central bank will continue with its quantitative and qualitative easing (QQE) programme until inflation remains stable at the 2-percent target. The central bank has also conducted two extraordinary bond purchases since the July rate-setting meeting to prevent yields from rising too much. Inflation stood at 3.3 percent in June and July, before slowing to 3.2 percent in August. The central bank's balance sheet total as a share of GDP amounted to 131.2 percent in September 2023 (Chart 3-4).

In September, the Chinese central bank left the medium-term lending facility at 2.5 percent and the one-year and five-year benchmark lending rates at 3.45 percent and 4.20 percent, respectively. However, the central bank implemented several interest rate cuts in the past quarter. It lowered its medium-term lending rate by 15 basis points to 2.50 percent in August, after having left this rate unchanged in July. The 18 largest commercial banks in China cut their benchmark one-year lending rates by a combined 20 basis points to 3.45 percent in June and August. The five-year lending rate fell by 10 basis points to 4.20 percent in June. Furthermore, the central bank aims to offset the recent depreciation of the renminbi against the US dollar by setting stronger-than-expected exchange rate reference values. Inflation fell from 0.0 percent in June to -0.3 percent in July and then rose to 0.1 percent in August. The central bank's balance sheet total stood at 33.7 percent of GDP in August 2023.

Poland's central bank cut its policy rate by 75 basis points to 6.00 percent in September, after keeping it at 6.75 percent since September last year. Looking ahead, the central bank will decide on further measures based on incoming data on inflation and economic activity. Inflation eased from 11.5 percent in June to 10.8 percent in July and then to 10.1 percent in August. The Harmonised Index of Consumer Prices was 9.5 percent in August (Chart 3-5).

Chart 3-7: Commodity prices



Source: Bloomberg

The Czech central bank kept its base rate unchanged at 7.0 percent. According to a statement issued by the central bank after its August rate-setting meeting, future monetary policy actions will depend on the information received and the achievement of the forecast. According to the statement, the Czech central bank has not intervened in the foreign exchange market since October 2022 to prevent the Czech crown from depreciating, and the central bank's Governing Council formally ended the interventions announced in May 2022 at its August meeting. Czech central bank Governor Aleš Michl told a press conference after the decision that a debate on cutting interest rates was not on the agenda in August because of inflation risks and that such a possibility would not be discussed until the autumn. Inflation eased from 9.7 percent in June to 8.8 percent in July and then to 8.5 percent in August. The Harmonised Consumer Price Index was 10.1 percent in August (Chart 3-5).

The Romanian central bank maintained its policy rate at 7.0 percent. Inflation fell from 10.3 percent in June to 9.4 percent in July and remained at that level in August. The Harmonised Consumer Price Index was 9.3 percent in August (Chart 3-5). In August, Romanian central bank governor Mugur Isarescu ruled out a rate reduction this year. Policymakers will not discuss the possibility of cutting interest rates until there are clear signs of falling inflation. According to Isarescu, price pressures and uncertainties still persist. In its August forecast, the central bank raised its projected inflation rate for the end of this year from 7.1 percent to 7.5 percent, while its projected inflation rate for the end of 2024 was lifted from 4.2 percent to 4.4 percent. Inflation is expected to exceed the central bank's target at the end of the forecast horizon.

Overall, sentiment on the financial and capital markets has deteriorated. In the period since June, the main market focus has been on expectations regarding the interest rate policies of the major central banks, incoming macroeconomic data and the deteriorating risk appetite caused by market turbulence in some countries. Investor sentiment is driven by the falling but still high global inflation environment. In the developed economies, primary inflation indicators have already shown significant declines in recent months, with a slight drop in core inflation as well. However, the positive picture is nuanced by the fact that upward global inflation risks have not yet been fully eliminated, which could lead to inflation persisting above the target levels.

Market sentiment was negatively affected by the downgrading of the US debt rating, the slowdown in the

Chinese economy and the persistent uncertainties due to the Russian invasion of Ukraine. Overall, macroeconomic data over the past few months have slightly exceeded market expectations, and while inflation data have pointed strongly towards disinflation, future inflation scenarios remain questionable, which has also had a negative impact on global financial market sentiment.

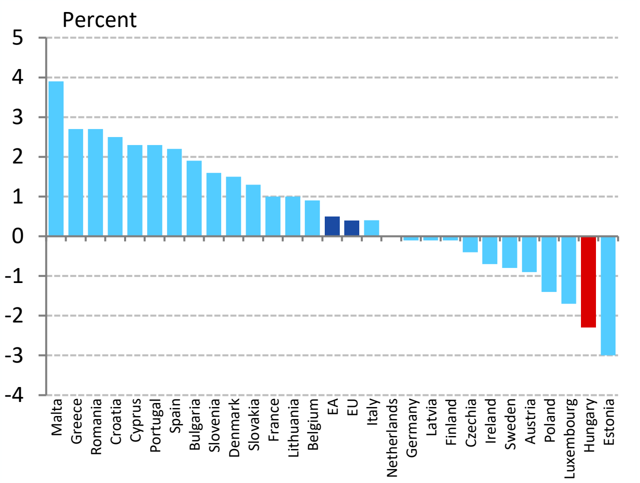
Oil prices have risen significantly recently, while energy prices have typically fallen and European gas prices have been on a flat path, with a few upticks (Chart 3-7). Overall, negative sentiment continued to prevail in the financial markets in the past quarter, which was reflected in the risk indicators that showed repeated, sharp rises during the period. While financial market volatility is currently in a range similar to the levels seen in the early summer, the August peak came close to the local peak observed in March. Developed stock indices in America rose by 1.5 percent, while in Europe and Asia they fell by almost 2 percent on average, as did the index for the emerging economies. The performance of the US dollar was mixed against developed currencies, remaining unchanged against the euro and weakening by 1.9 percent and 0.2 percent against the Swiss franc and the pound sterling, respectively. USD strengthened by 1.0 percent against the Japanese yen and by 2.2 percent against the Canadian dollar. Developed market long bond yields rose, with the US and Japanese 10-year yields advancing by nearly 30 basis points, while German 10-year yields increased by 10 basis points (Chart 3-6). Emerging market bond yields were mixed, with long yields in the region falling by 15 basis points in Poland, while Hungarian, Czech and Romanian yields rose by 10 to 20 basis points.

Developed central banks have probably reached the end of the rate hike cycle, according to market pricing. At its latest policy meeting, the Fed did not change its policy interest rate target range in line with expectations, but market pricing suggests that interest rates could remain at current levels for a sustained period, with easing starting in May at the earliest. For the ECB, market participants also expect that interest rates could remain at current levels, with the interest rate curve still peaking at around 4 percent.

3.2. Production and consumption side analysis of domestic GDP

In 2023 Q2, the output of the Hungarian economy declined, with gross domestic product contracting by 2.4 percent year-on-year and 0.3 percent quarter-on-quarter. On the production side, only agriculture (+1.7 percentage points) made a positive contribution to the year-on-year volume index, while industry (-1.0 percentage points), construction (-0.3 percentage points) and services (-1.5 percentage points) developed negatively. On the consumption side, declining real wages due to high inflation dragged down household consumption (-1.5 percentage points), while gross fixed capital formation (-4.8 percentage points) and changes in inventories (-2.3 percentage points) also deepened the economic downturn. However, final community consumption (+0.8 percentage points) and net exports (+5.4 percentage points) exerted an opposite effect.

Chart 3-8: Annual GDP change in EU countries in 2023 Q2

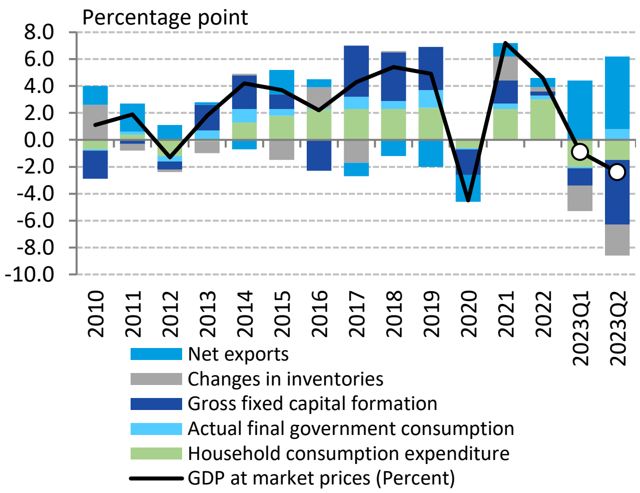


Note: Seasonally and calendar adjusted data.
Source: Eurostat

In 2023 Q2, the performance of the Hungarian economy declined, with gross domestic product falling by 2.4 percent on an annual basis, according to raw data. Based on seasonally and calendar adjusted data used for international comparisons, GDP fell by 2.3 percent year-on-year and by 0.3 percent quarter-on-quarter. The euro area economy grew by 0.5 percent on an annual basis, while the EU economy grew by 0.4 percent. The growth gap between Hungary and the European Union widened, as the domestic growth rate was 2.7 percentage points lower than the EU average (Chart 3-8).

Falling real wages resulted in a 3.2 percent year-on-year decline in household consumption expenditure in the second quarter. The volume of domestic final consumption expenditure fell by 9.0 percent for non-durable goods and 4.2 percent for semi-durable goods, while durable goods and services increased by 0.1 percent and 0.7 percent, respectively. Community consumption contracted by 0.3 percent on an annual basis. Welfare benefits in kind from the government increased by 4.0 percent, while welfare benefits in kind from the non-profit sector increased by 0.5 percent compared to the same period last year.

Chart 3-9: Annual change in decomposition of expenditure-side GDP

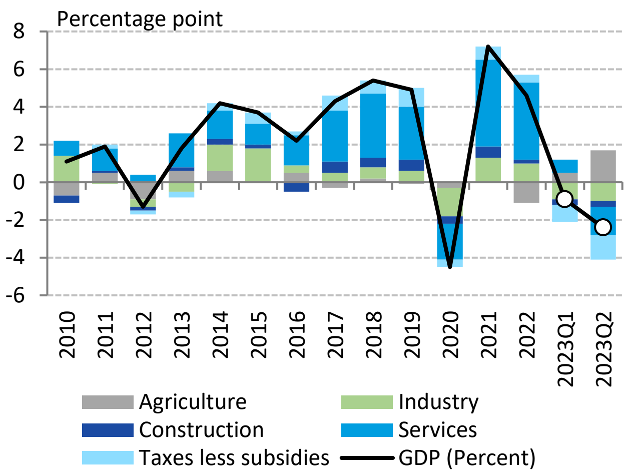


Note: Actual final government consumption includes social transfers in kind from the government and NPISHs. Changes in inventories includes acquisitions less disposals of valuables.
Source: HCSO, MNB

Gross fixed capital formation dropped by 15.6 percent on an annual basis. The volume of construction investment fell significantly, while investment in machinery and equipment increased. The four-quarter rolling average of the investment rate at current prices was 27.4 percent in the second quarter. However, calculated at fixed 2015 prices the rate has dropped to 23.6 percent. The **contribution of the change in inventories to growth was negative** (-2.3 percentage points).

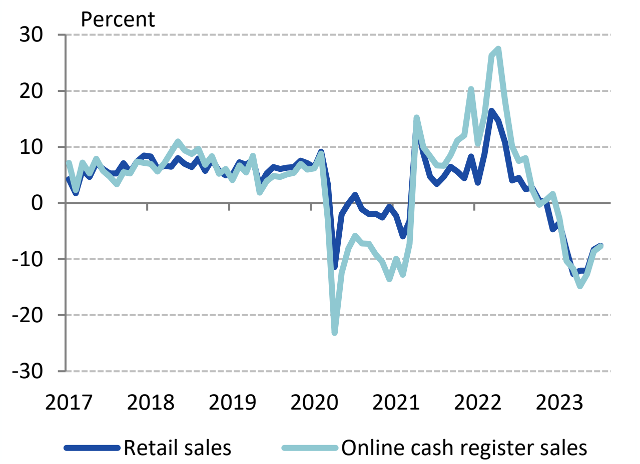
The volume of exports increased (+0.2 percent), while imports decreased (-5.6 percent). Exports of goods rose by 1.8 percent, while exports of services fell by 6.2 percent compared to the same prior-year period. **Overall, net exports reduced the decline in GDP by 5.4 percentage points in the second quarter** (Chart 3-9).

Chart 3-10: Annual change in decomposition of production-side GDP



Source: HCSO

Chart 3-11: Annual change in retail sales and online cash register sales in real terms



Note: Seasonally and calendar adjusted data. Online cash register sales' real values deflated by the consumer price index.
Source: HCSO, MNB, NTCA

Industrial output contracted by 5.7 percent, while manufacturing output dropped by 4.0 percent compared to the same period of the previous year. Of the manufacturing sectors, the largest contributors to the decline were chemicals and chemical products, whereas the decline in industry was curbed mostly by the manufacturing of motor vehicles and electrical equipment. The fall in the energy industry also contributed significantly to the contraction of industrial performance. **Construction output fell by 6.0 percent.**

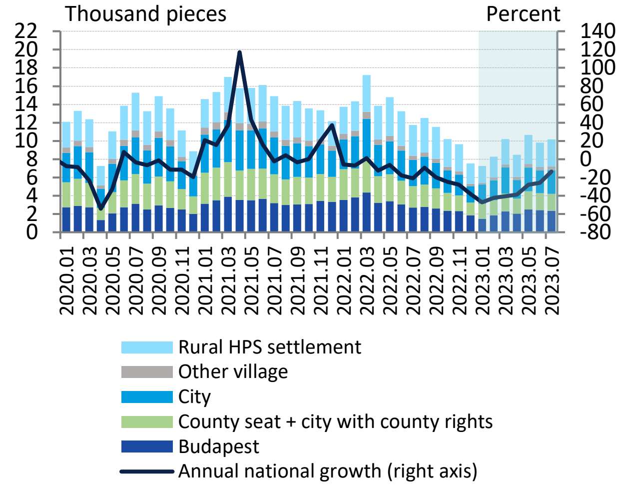
Agricultural performance increased by 67.9 percent on an annual basis **compared to the low base from last year**.

The combined volume of value added in services fell by 2.4 percent. There was a decline in the performance of heavy trade (-11.1 percent), transport, storage and warehousing (-6.2 percent), professional, scientific, technical and administrative services (-2.9 percent) and arts, entertainment, recreation and other services (-1.4 percent). Among other market services, there was growth in information and communication (+2.6 percent), financial and insurance services (+1.9 percent), government-related services (public administration, defence, compulsory social security; education; human health and social work services: +1.4 percent) and real estate transactions (+0.5 percent) (Chart 3-10).

In 2023 Q2, the annual growth rate of **retail sales continued to decline** (Chart 3-11). In July 2023, the volume of retail sales fell by 7.6 percent year-on-year on a seasonally and calendar adjusted basis, marking eight months of year-on-year declines in retail sales. NAV online cash register turnover increased by 9.9 percent in nominal terms, while inflation-adjusted turnover fell by 7.7 percent in year-on-year terms in July, according to seasonally and calendar adjusted data. This figure differs from retail sales in that it includes turnover from, for example, restaurants, taxi services and certain accommodation services.

In the second quarter, the volume of new contracts signed in the household loan market fell on a year-on-year basis. The annual growth rate of household loans in the overall financial intermediary system decelerated by 1.8 percentage points compared to the previous quarter, dropping to 2.8 percent at the end of June. The volume of housing loans contracted with credit institutions in 2023 Q2 was 67 percent lower, while the volume of personal loans issued was 10 percent lower than in the same period of the previous year. On a quarter-on-quarter basis, partly due to seasonal factors, the volume of housing loans grew by 23 percent, while the volume of personal loans increased by 26 percent. In the second quarter, young married couples

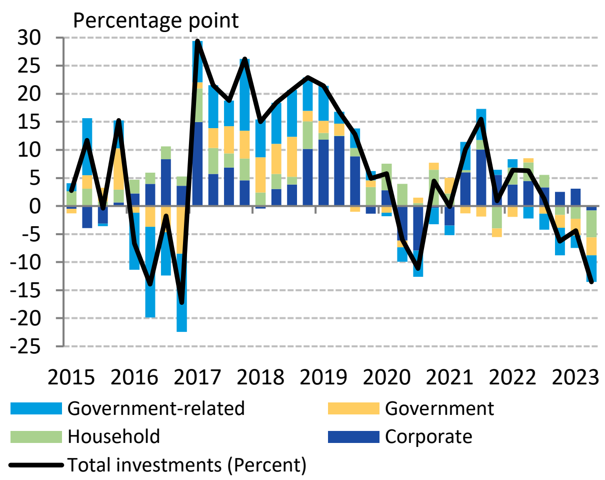
Chart 3-12: Number of housing market transactions by settlement type



Note: Only taking into account 50-percent and 100-percent private acquisitions. From July 2021 to September 2022, the data of the NTCA fee database are adjusted based on the estimation of the level of processing by type of settlement. Based on transactions and estimated market share of real estate agents in the months shown.

Source: Housing market intermediary database, MNB, NTCA

Chart 3-13: Decomposition of the annual change in investments



Source: HCSO, MNB

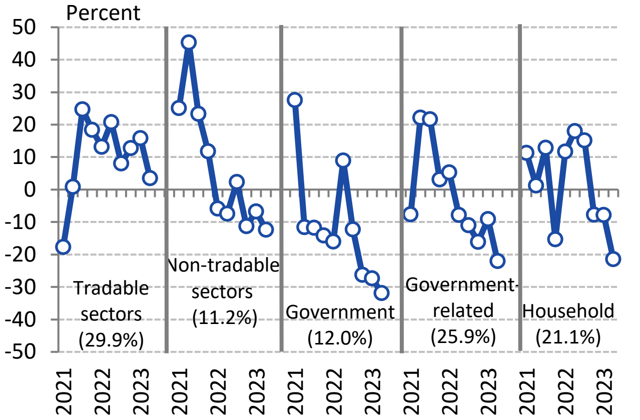
concluded HUF 58 billion worth of baby loan contracts, which was 52 percent lower than in the same period of the previous year. Based on responses to the Lending Survey, a net 15 percent of banks reported a further decline in demand for housing loans in the second quarter, while 91 percent of banks reported an increase in demand for consumer loans.

The number of transactions in the housing market remained low. In 2023 Q2, it is estimated that the number of transactions fell by 29.2 percent year-on-year in settlements eligible for rural CSOK, 28.2 percent in Budapest, 34.8 percent in county towns, 31.2 percent in other cities and 34.7 percent in other types of settlements. At the national level, in total, there were 29,000 transactions in the housing market in the second quarter, down 30.8 percent versus 41,900 transactions in the same period of the previous year. The last time the number of transactions in the second quarter was lower than this was in 2013, at the turning point in the housing market cycle. July 2023 saw no significant increase in the number of housing market transactions in month-on-month terms. According to the MNB home prices index, in 2023 Q1, prices of homes rose by 1.2 percent nationally, i.e. by 1.6 percent in the capital and by 4.0 percent in other cities, while prices in villages dropped by 3.4 percent on a quarterly basis in nominal terms, which means that home prices have been falling steadily for three quarters in that settlement category. Based on preliminary data, home prices are estimated to have increased by 1.5 percent nationwide on a quarterly basis in 2023 Q2 (Chart 3-12).

Investment in the national economy dropped by 13.5 percent in 2023 Q2 compared to the same period a year earlier. The rate of decline exceeded the 4.4 percent year-on-year decline in the previous quarter. Investment in machinery and equipment grew by 4.0 percent, while investment in construction fell significantly, by 24.2 percent on an annual basis in the second quarter (Chart 3-13).

Investment rose in sectors that produce primarily for export markets, while investment fell in sectors that are mainly active domestically. Investment in sectors producing for the external market grew by 3.5 percent on an annual basis in the second quarter. In manufacturing, which accounts for the largest weight among these sectors, investments increased by 7.7 percent. At the same time, sectors producing for the domestic market and the services sector registered an overall decline of 12.3 percent compared to the same period last year. In particular, investment in accommodation and food services declined at the highest rate (-35.4 percent). In 2023 Q2, investment

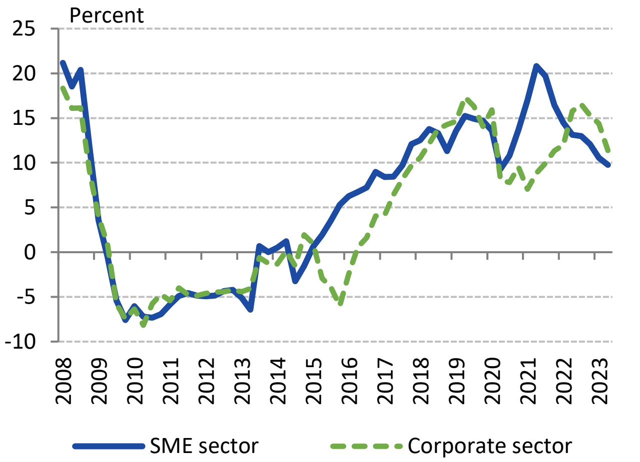
Chart 3-14: Annual change in the investment performance of whole-economy sectors



Note: The 2022 weights within the total investment are given in brackets. Tradable sectors: Agriculture, Mining, Manufacturing; Non-tradable sectors: Construction, Trade, Catering, Communication, Financial activities; Government: Public administration, Education, Health; Government-related: Energy, Water supply, Transportation and several small service sectors; Household: Real estate transactions.

Source: HCSO, MNB

Chart 3-15: Annual change in lending to non-financial corporates and SMEs



Note: Data for the corporate sector are based on transactions with the total financial intermediary system. The SME sector does not include the self-employed.

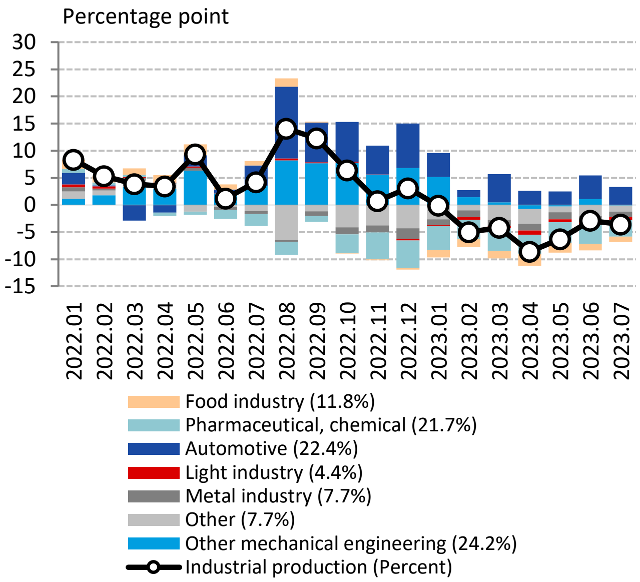
Source: MNB

by government bodies decreased by 18.0 percent on an annual basis. The decrease was partly due to a lower volume of EU-funded projects in the period under review, according to the HCSO. Investment in the narrowly defined public sector (public administration, education, health) fell significantly, dropping by 31.9 percent. The volume of development decreased in public administration (-25.7 percent), education (-35.1 percent) and health (-40.9 percent). Investment in sectors indirectly linked to the government (quasi-fiscal) fell by 22.0 percent. Investment in the household real estate investment sector fell by 21.4 percent on an annual basis (Chart 3-14).

The annual growth rate of corporate loans dropped in line with international trends, with the share of market loans falling again as subsidised schemes picked up. The stock of corporate loans across the entire financial intermediary system grew by 11.4 percent in 2023 Q2, reflecting a slowdown of 3 percentage points compared to the end of the previous quarter. Within corporate lending, the annual growth rate of SME lending was 9.9 percent at the end of the second quarter. Of all newly signed corporate loans other than overdrafts, 50 percent were market loans in the second quarter. That value is significantly lower than the 73 percent at the end of last year due to the ramp-up of the Széchenyi Card Programme and the Baross Gábor Loan Programme. Most of the contracts under the HUF 1,000 billion Baross Gábor Loan programme were signed during the second quarter, which contributed to a decline in the share of market-based contracts. Based on the responses to the lending survey, fewer banks reported a tightening of credit conditions in the second quarter. In terms of demand for loans, a dichotomy remains: a net 65 percent of banks observed stronger demand for short-term loans in 2023 Q2, while 29 percent saw a decline in demand for long-term loans. Looking ahead, however, demand is expected to increase moderately in both sub-markets (Chart 3-15).

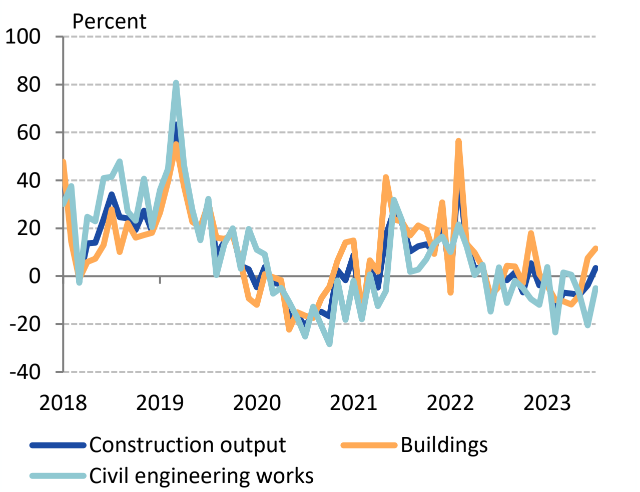
Domestic industrial production fell by 6.3 percent in the second quarter compared to the same period of the previous year. Of the industrial sub-sectors, battery production continued to see dynamic growth and automotive manufacturing also expanded, while pharmaceuticals and chemicals, food, light manufacturing and metals posted declines. The external trade balance showed a significant surplus in the second quarter. The terms of trade improved by 4.8 percent on an annual basis in the second quarter, mainly driven by the relative change in the prices of machinery and transport equipment, in

Chart 3-16: Sectoral breakdown of annual change in domestic industrial production



Note: The 2022 weight of the sectors in industrial production is given in brackets. Without water and waste management industry. Total industrial production does not include the performance of enterprises with less than five employees.
Source: HCSO, MNB

Chart 3-17: Evolution of construction output



Source: HCSO

addition to an adjustment in the prices of mineral fuels (Chart 3-16).

Construction output fell by 6.2 percent in 2023 Q2 versus the same period a year earlier. Building construction dropped by 3.6 percent, while the construction of other structures declined by 10.1 percent on an annual basis (Chart 3-17).

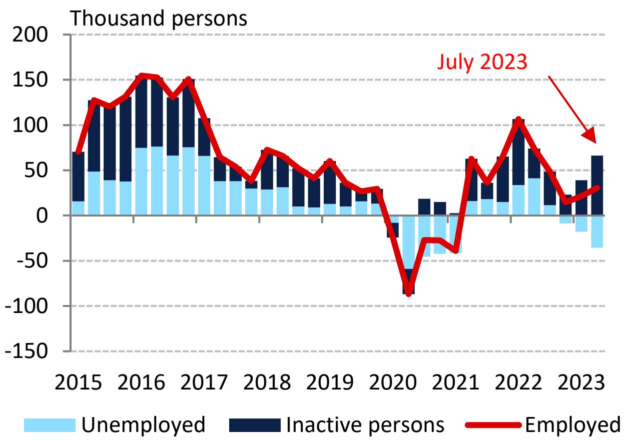
3.3. Labour market

Employment in the national economy remains at a historic high. Continued year-on-year employment growth in the second quarter was driven by an increase in the number of private sector employees. Unemployment rates remain low in an international comparison. The number of vacancies advertised is above the pre-crisis range, suggesting that the labour market is stable and is still unaffected by the economic slowdown. Average gross earnings in the competitive sector increased by 17.9 percent in 2023 Q2 compared to the same quarter of the previous year.

3.3.1. Employment and unemployment

Employment in the national economy remains at historically high levels. In 2023 Q2, the average number of employed persons aged 15–74 was 4,724,000, an increase of 31,000 versus the same period of the previous year (Chart 3-18). The increase in the number of employees was mainly supported by the primary labour market, with the number of fostered workers decreasing by 7,000 and the number of those employed at local units abroad increasing by 7,000 on an annual basis. In July, the number of employed persons was 4,745,000, which is 32,000 thousand more than in the same period of the previous year. Based on seasonally adjusted data, employment levels were at a historic high during the second quarter. The unemployment rate, calculated using the methodology of the HCSO based on a three-month moving average, averaged 4.0 percent between April and June 2023, based on seasonally adjusted data. The latest data for July show a seasonally adjusted unemployment rate of 3.9 percent. The domestic unemployment rate is still low in an international comparison.

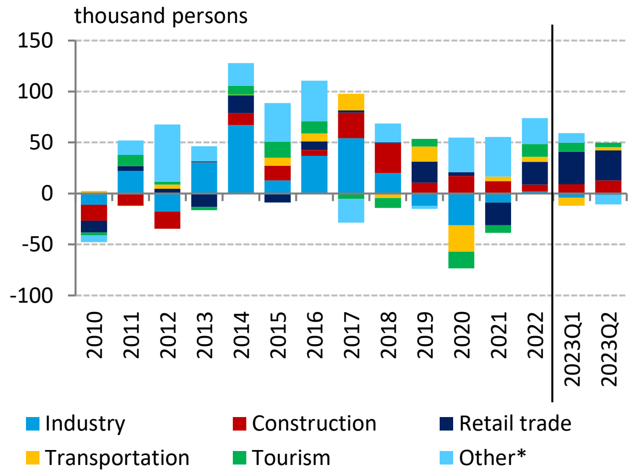
Chart 3-18: Decomposition of annual changes in whole-economy employment



Note: Instead of 2023 Q3, monthly data for July is available. Changes in the number of unemployed and economically inactive have the opposite sign.
Source: HCSO

In 2023 Q2, employment growth was driven by the private sector, which increased by 39,000 compared to the same period of the previous year. The number of full-time equivalent (FTE) employees decreased by 0.4 percent compared to last year's equivalent period. Based on detailed sectoral data available on a quarterly basis, employment increased in construction, while it remained flat in manufacturing. The highest growth was observed in the market services sector (including trade, accommodation and food services, transport and storage, information and communication, and retail trade) (Chart 3-19). In the public sector, employment in public administration and health decreased on an annual basis.

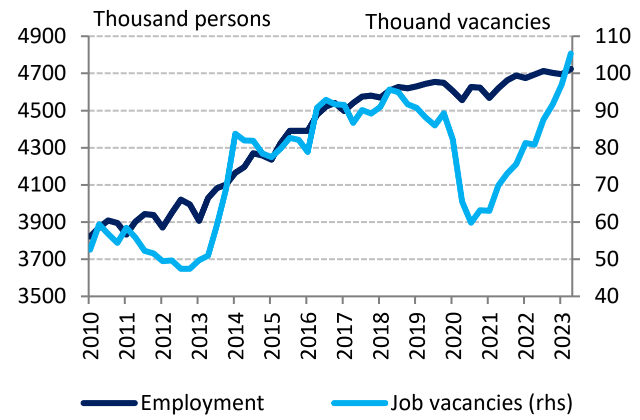
Chart 3-19: Decomposition of annual changes in private sector employment



Note: *Agriculture, other industry and service sector branches.
Source: HCSO

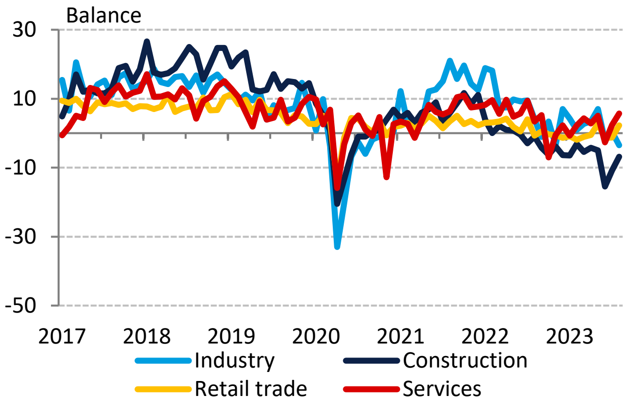
The number of unfilled non-subsidised vacancies continued to rise from the previous quarter and is at a historically high level (Chart 3-20). According to the National Employment Service, the number of job vacancies was 106,000, an increase of 30 percent compared to the same period last year. Based on seasonally adjusted data, the number of vacancies has been rising steadily over the last four quarters.

Chart 3-20: Trends in the number of employed persons and the number of available unsubsidized vacancies



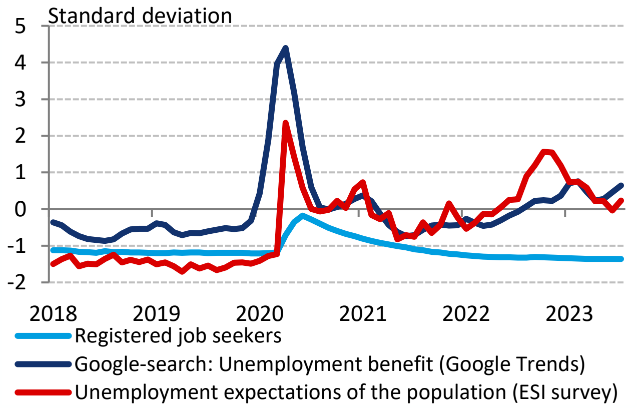
Note: Seasonally adjusted data.
Source: HCSO, NES

Chart 3-21: Employment expectations in the ESI business survey



Note: The balance is positive (negative), if the majority of companies plans to hire (lay off). Seasonally adjusted data.
Source: European Commission

Chart 3-22: Indicators capturing the short-term evolution of unemployment



Note: Standardised values.
Source: NES, ESI, Google

According to the ESI business survey, which monitors business sentiment, businesses' expectations for employment in August 2023 varied by industry. In construction and manufacturing, the outlook is negative, with most companies planning to cut jobs over the next three months. In other services and trade sectors, most companies expect an increase in employment in light of the August data. In August, all sectors, except manufacturing, tended to show a positive trend compared to the previous month (Chart 3-21).

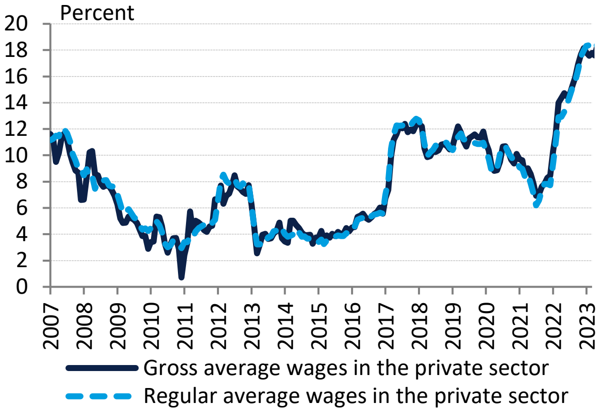
Indicators capturing short-term unemployment trends show a mixed picture (Chart 3-22). The number of registered unemployed was 227,000 in July. The seasonally adjusted data show no significant change compared to the values observed since spring 2022 and remain low by European standards. The Google Trends indicator for unemployment benefits has started to deteriorate slightly after an improving trend in recent months. According to the ESI public survey, fears of unemployment have risen again in the public after some easing in recent months.

3.3.2. Wages

While wage trends have remained powerful, the rate of wage increases in May and June is below that in previous years. In 2023 Q2, average gross earnings in the competitive sector increased by 17.9 percent on an annual basis (Chart 3-23). Regular average earnings rose by 17.7 percent compared to the same period last year, while bonus payments were significantly higher than the average of previous years. The dynamics of average wage growth in most sectors of the competitive sector were above 15 percent in the second quarter.

Among the countries in the region, nominal wage growth in Hungary was the highest in 2023 Q2. Wage growth in the national economy amounted to 16.5 percent between April and June. By contrast, earnings grew by 14.0 percent in Romania, 12.1 percent in Poland, 10.8 percent in Slovakia and 7.7 percent in Czechia on an annual basis. Real wages fell in all countries in the region except Romania in 2023 Q2.

Chart 3-23: Annual change in gross average wages in the private sector

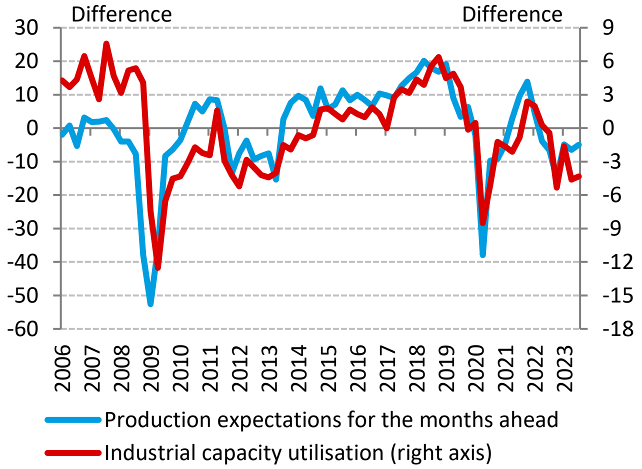


Note: Three-month moving averages.
Source: HCSO

3.4. Cyclical position of the economy

The performance of the Hungarian economy continued to decline on an annual basis in 2023 Q2. In parallel with the economic slowdown, the cyclical position of the economy has a disinflationary effect. Gross domestic product excluding the contribution of agriculture fell by 4.1 percent in year-on-year terms in the second quarter. Moreover, the structure of GDP points to a drop in domestic demand, which further reinforces the disinflationary impact of the demand cycle. Both the capacity utilisation and production expectations of manufacturing companies remain below the historical average.

Chart 3-24: Capacity utilisation and production expectations in manufacturing



Note: Deviation from historical average
Source: MNB based on ESI

We estimate that the cyclical position of the economy has been negative since the end of 2022 and has thus had a disinflationary effect. In the first half of last year, the cyclical position of the economy was positive, driven by buoyant demand and frictions in supply chains. These effects led to an inflationary cyclical position. Following that, however, in parallel with the slowdown in economic performance, the cyclical position of the economy started to worsen and became negative. Both the slowdown in demand and the expected easing of supply constraints have led to disinflationary effects on the real economy.

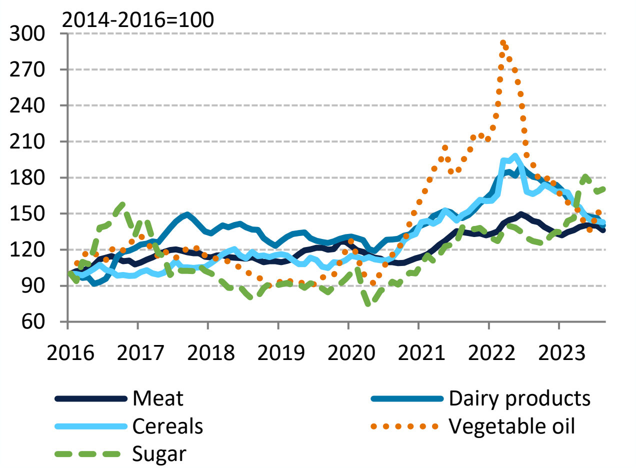
According to the questionnaire-based surveys, the capacity utilisation of manufacturing companies has improved slightly in recent months, but remains well below the historical average (Chart 3-24). While production expectations for the coming months have improved moderately, they are also below the historical average.

3.5. Costs and inflation

The annual rate of increase in consumer prices was 16.4 percent in August. The decline in domestic inflation has continued and strengthened in recent months, driven mainly by a decline in the price index for food and industrial goods. Core inflation excluding indirect taxes was 15.2 percent in August. The decline in core inflation was primarily supported by processed food, but a slowdown in inflation was seen across a wide range products and services. Food price inflation slowed down for the eighth month in a row in August, to 19.5 percent, according to the HCSO. After two years, the rise in the prices of market services started to decelerate and eased to 16.4 percent in August. The rate of repricing in Hungary this year has been in line with the regional pattern. Producer price dynamics have slowed considerably, normalising after the growth rates that were several times higher than the historical average. The indicators capturing more persistent inflationary trends, calculated on a year-on-year basis, have moderated in recent months.

3.5.1. Producer prices

Chart 3-25: Development of world market prices of food

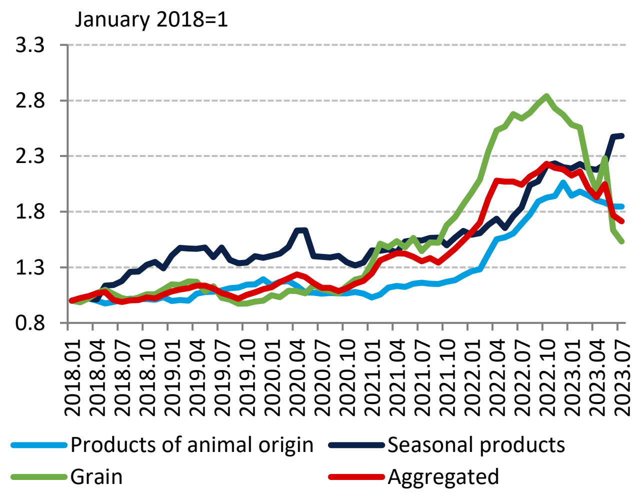


Source: FAO

World food prices have continued to decline. Prices of dairy products and cereals have been gradually falling since the beginning of the year, while meat and sugar prices also moved lower during the summer. However, vegetable oil price levels rose over the summer on the back of uncertainties about global supply (Chart 3-25).

Domestic agricultural producer prices fell for the first time in five years on an annual basis, declining by 7.6 percent in 2023 Q2 compared to the same prior-year period. Grain prices dropped the most, decreasing by 24.1 percent over a year. Prices of products of animal origin rose by 19.2 percent on an annual basis, but were lower compared to the previous quarter. Prices of seasonal products increased both on a year-on-year basis and compared to the previous quarter, with potatoes showing the largest increase within the product group (Chart 3-26). In July, grain prices kept falling, while prices of seasonal products continued to rise.

Chart 3-26: Development of agricultural prices



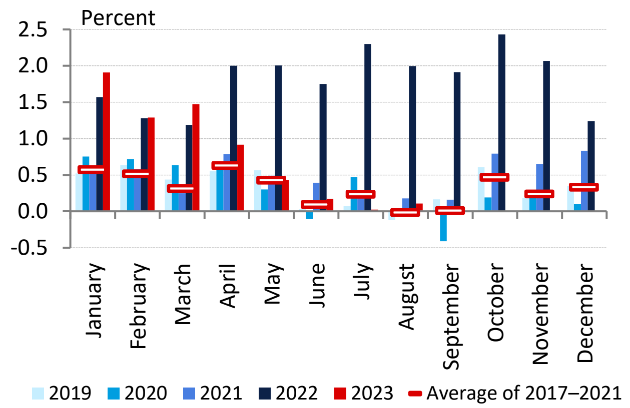
Note: Based on seasonally adjusted data.
Source: HCSO

In manufacturing, producer price inflation has normalised following a period when growth rates were several times above the historical average. In July 2023, prices were 1.3 percent higher than in the same period of the previous year. A contrast can be observed in the price dynamics of domestic and foreign sales. While the price index for domestic sales remains high, the price dynamics of foreign sales have fallen significantly. In the summer months, domestic sales prices for industry as a whole rose by around 20 to 30 percent on an annual basis. Energy-producing sectors were the main contributors to this. At the same time, the level of prices has fallen for domestic sales versus the previous quarter.

3.5.2. Consumer prices

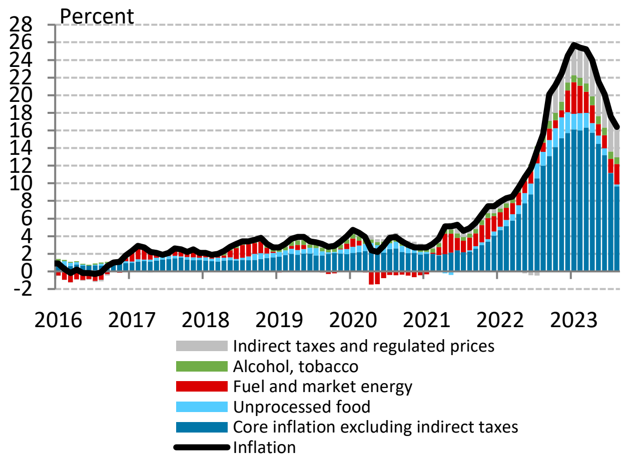
In August 2023, the decline in domestic inflation continued and strengthened, with the three-month change in consumer prices already in line with the regional average in the latest quarter. The annual rate of increase

Chart 3-27: Monthly price changes of consumer prices excluding fuel and regulated prices



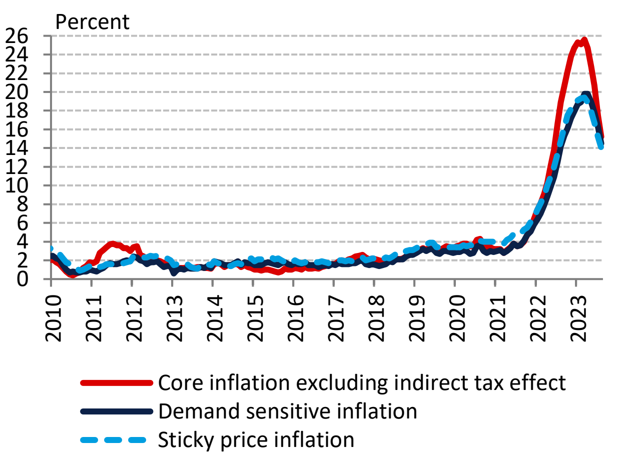
Note: Tax-adjusted, seasonally unadjusted monthly change.
Source: MNB calculation based on HCSO data

Chart 3-28: Decomposition of inflation



Source: MNB calculation

Chart 3-29: Underlying inflation indicators



Source: MNB calculation based on HCSO data

in consumer prices was 16.4 percent in August (Chart 3-27). In August, a moderate month-on-month rise of 0.1 percent was registered for the price of the basket calculated excluding fuel and regulated prices. Month-on-month core inflation excluding processed food, which better reflects underlying developments, was 0.6 percent in June and July and 0.1 percent in August. Such values are significantly lower than the repricing seen at the beginning of the year. Inflation has been declining more quickly in recent months, driven mainly by a fall in the price index for food and industrial goods (Chart 3-28). The rate of repricing in Hungary this year was in line with the regional pattern.

Core inflation excluding indirect taxes declined sharply, by 7.5 percentage points in the summer months, falling to 15.2 percent in August. The decline in core inflation was also mainly supported by processed food, but a slowdown in price inflation was seen across a wide range products and services. The indicators capturing more persistent inflation trends have also moderated (Chart 3-29).

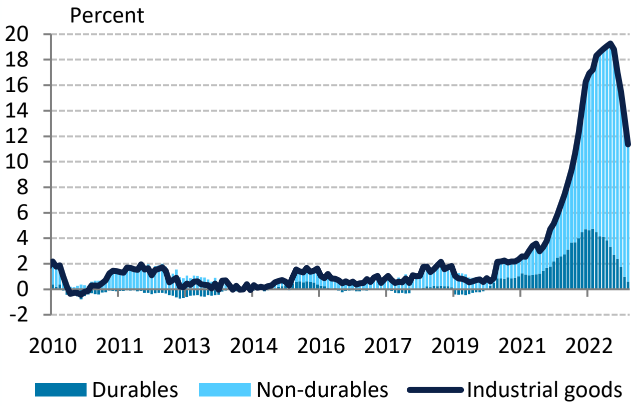
The annual inflation of tradables dropped to 11.4 percent in August. On a monthly basis, prices for the product group rose by 0.5 percent in June and July and stagnated in August. Within the range of products, prices of non-durable manufactured goods increased during the summer compared to the previous months, which was partly offset by a fall in prices of durable manufactured goods (Charts 3-30 and 3-31).

Inflation in market services fell in June after two years, with the annual price index easing to 16.4 percent in August. In services, the monthly price increase in August was 0.3 percent, which is the same as the average monthly price increase in August over the past 10 years. This is substantially lower than the price dynamics over the spring, when the repricing of telecommunications and banking services, indexed to inflation in the previous year, led to a monthly price increase of over 2 percent (Chart 3-32).

The price of alcohol and tobacco products has seen double-digit increases in recent months, with inflation for the product group exceeding 12 percent in August. Compared to July, prices in the product group increased slightly, by 0.2 percent, with the largest contribution coming from higher prices for tobacco products.

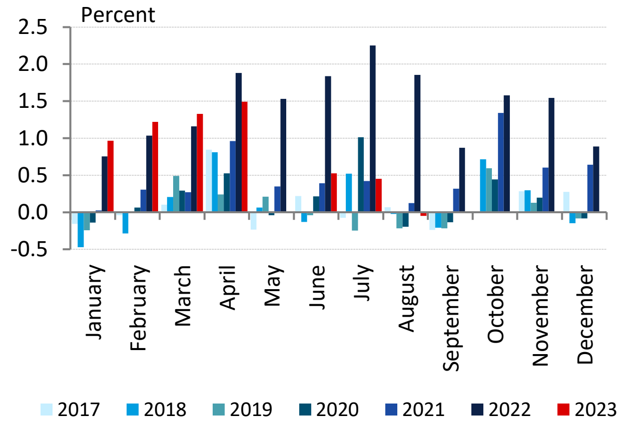
Food inflation slowed for the eighth consecutive month in August, but the pace of price increases remains well above the historical average in the product group. According to the HCSO, prices in the product group rose by 19.5 percent in August compared to the same period of the previous year. Unprocessed food inflation fell to 16.0 percent and

Chart 3-30: Inflation of industrial goods



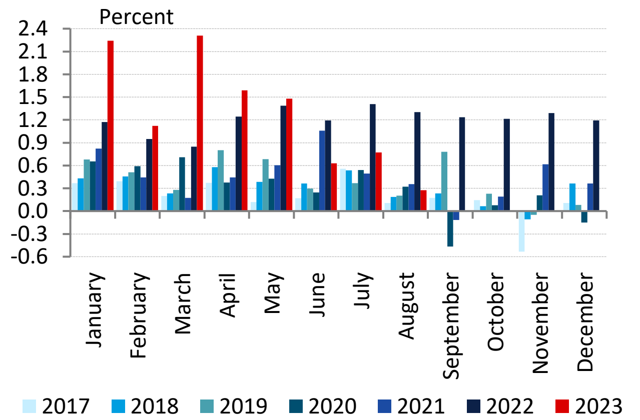
Note: Annual change, excluding the effect of indirect taxes.
Source: MNB calculation based on HCSO data

Chart 3-31: Monthly price changes of traded goods



Note: Tax-adjusted, seasonally unadjusted monthly change.
Source: MNB calculation based on HCSO data

Chart 3-32: Monthly price change of market services



Note: Tax-adjusted, seasonally unadjusted monthly change.
Source: HCSO, MNB

processed food inflation dropped to 17.9 percent. The slowdown in the inflation of unprocessed food prices was primarily caused by the decrease in fresh vegetable and egg prices, while the downtrend in processed food price dynamics was mainly explained by the decline in prices for milk, dairy products and bread. Compared to July, unprocessed food prices fell by 1.0 percent and processed food prices rose by 0.6 percent. The fall in prices was also driven by the reduction in raw food prices and increased competition between retailers.

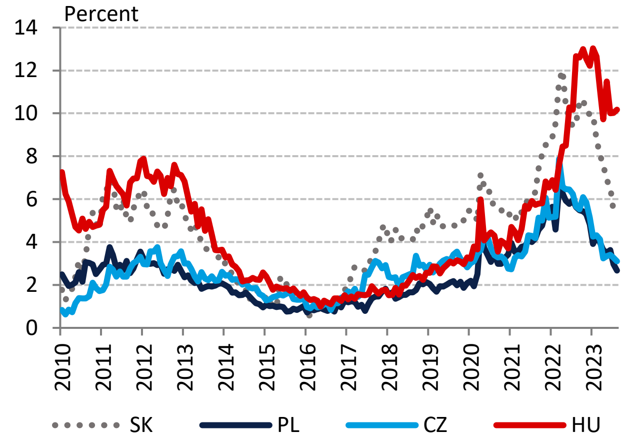
The downward trend in fuel price dynamics observed since January has reversed, with inflation in the product group rising in summer months. Annual inflation for the product group rose by nearly 10 percentage points in August to 31.1 percent; on a monthly basis, prices rose by 8.2 percent. The rise in global oil prices has had a strong impact on domestic fuel prices, slowing down the disinflationary process.

Looking at data for recent months, inflation has been in line with the forecast range in the June Inflation Report.

3.5.3. Inflation expectations

In Hungary, inflation expectations have been slowly declining since the beginning of the year. Overall, there was a slight moderation in inflation expectations in the countries of the region compared to the beginning of the year. Within the region, inflation expectations have been gradually declining since January in Hungary, Czechia and Slovakia and since February in Poland (Chart 3-33).

Chart 3-33: Inflation expectations in the region



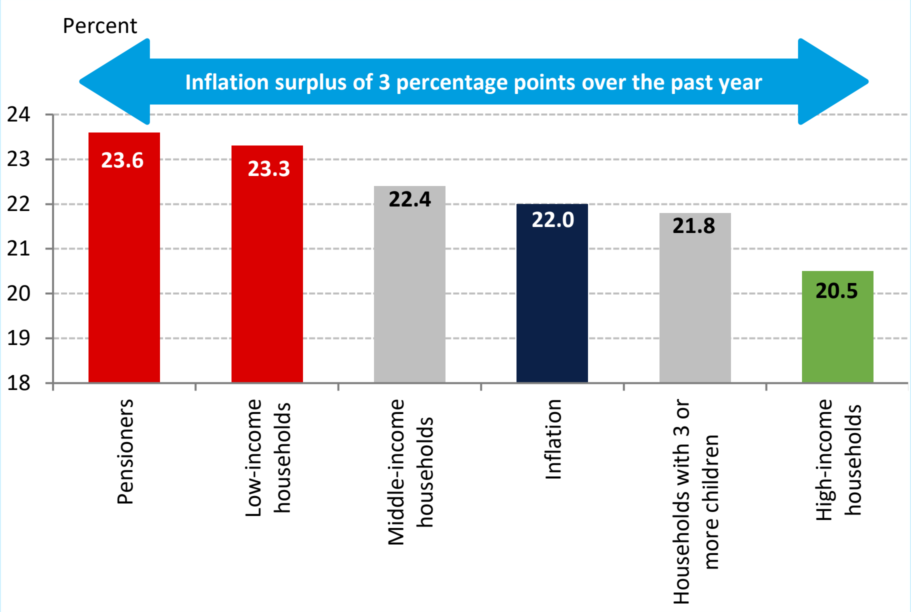
Source: MNB calculations based on European Commission data

Box 3-1: Different inflation in different social groups

While all families have been affected by last year's wave of inflation, its impact varies across social groups. The consumption structure of households with different income and demographic structures differs from the average national consumption pattern the official inflation indicator is based on. Consequently, different households are exposed to varying inflation rates when the prices of goods and services increase at various rates. The structure of an individual consumer's basket can have a significant impact on perceived inflation if there is a significant divergence in price changes across product groups (for example, at the peak of inflation in January 2023, food prices increased by 48.1 percent on an annual basis, while market services increased at a much smaller rate of 16.6 percent).

Due to high food inflation, pensioners and low-income households were exposed to a higher-than-average rate of inflation. Inflation for those two social groups became higher than the average rate of inflation in the last quarter of 2022. The largest difference was observed in November 2022, when inflation in the consumer basket of low-income earners and pensioners exceeded headline inflation by 2.2 percentage points and 2.7 percentage points, respectively. While the slowdown in price dynamics from January 2023 onwards has been perceived by all social groups, higher inflation for pensioners and low-income earners still persists. During the summer months, inflation in both social groups was at least 1 percentage point above the official price increase for all households (Chart 3-34).

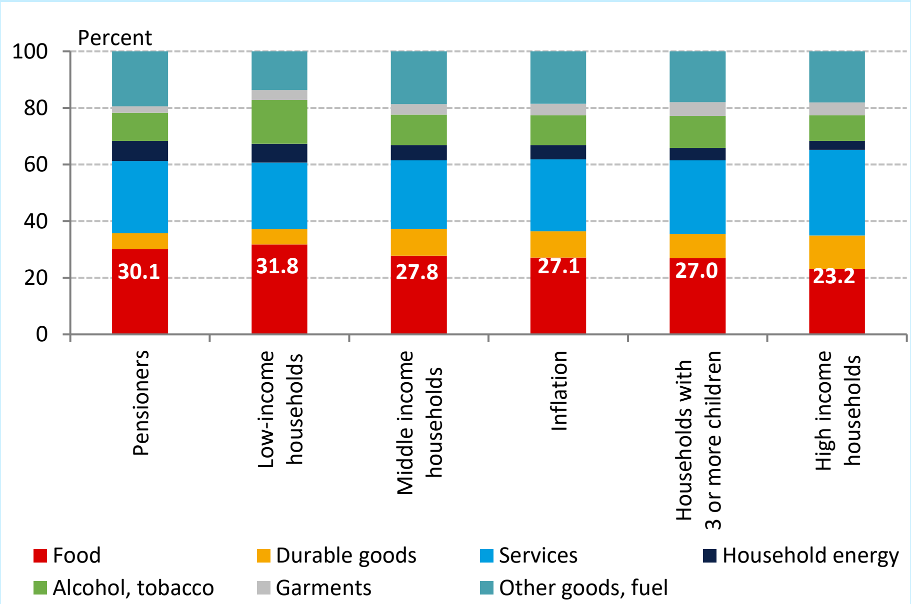
Chart 3-34: Inflation perceived by various social groups



Note: Average between August 2022 and August 2023.
Source: HCSO, MNB

The primary reason for higher inflation for pensioners and low-income households is the higher weight of food in the baskets of these two groups, which faced inflation of over 45 percent at the turn of 2022 and 2023. The weight of food in the basket of low-income consumers and pensioners is, respectively, 4.7 percentage points and 3 percentage points higher than for the average consumer (Chart 3-35). In November, the higher weight of food added 2.6 percentage points to the higher inflation for low-income earners and 1.8 percentage points for pensioners. In line with the decline in food inflation, this additional inflation was reduced to 0.6 and 0.4 percentage points, respectively, in August. The decline in the incomes of lower-income groups also has a significant impact on the fall in retail sales through their high consumption rates.

Chart 3-35: Weight of product groups in the consumer basket of various social groups



Note: Weights for 2022, based on HCSO's classification.
Source: HCSO

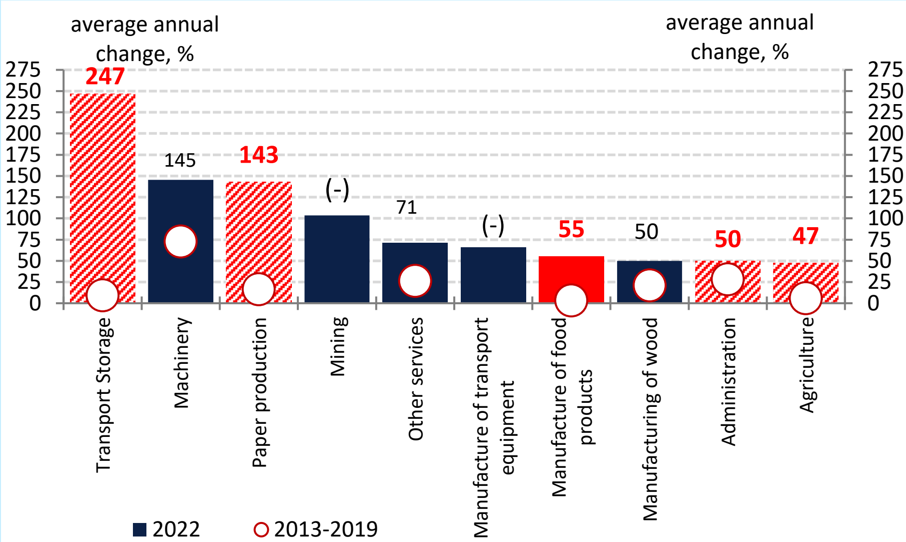
Box 3-2: Profit inflation in the food industry

More than one third (38 percent) of the 14.5-percent inflation in 2022 resulted from rising food prices. Food inflation also explains a significant part of Hungary's excess inflation relative to other countries in the region last year, accounting for more than half of the inflation differential compared to other Visegrád countries in December 2022. A large part of the difference in food price increases can be attributed to food processed by the food industry.

In addition to higher cost factors, price increase were also driven by a significant rise in corporate profits. Over the past two years, inflation has been increasingly driven by companies raising prices above their costs, i.e. profit-driven inflation. Our calculations show that the non-cost-related component of inflation rose sharply in Hungary from 2022 H2 and accounted for one third of the 21.9-percent inflation rate recorded in 2023 Q2.

In the food production sector, nominal profits rose by 55 percent in 2022. Based on recently available data for 2022, we examined the evolution of the main drivers of inflation trends in 2022: the operating results (economic profits) of food companies. While the average nominal profit increment in that industry was 3 percent per year in the period 2013–2019, this rate reached 55 percent in 2022 alone (Chart 3-36). In terms of profit levels, the operating profit of the food industry was also outstanding in 2022, as the average profit was 2.6 times higher than the average observed in the period 2013-2019.

Chart 3-36: Annual change in gross operating profits in the 10 sectors boasting the highest profit growth



Note: Nominal operating profits are calculated at the sector level. Other service activities (S) include: activities of membership organisations, repair of computers and personal and household goods, and other personal service activities. Sectors supplying the food industry are marked in a different colour. Excluding non-profit institutions and special-purpose entities.
Sources: MNB calculation based on NTCA, Ministry of Justice, Organisations Register and HCSO data

Apart from the food industry, the supply sectors also contributed to profit-driven food inflation, as their profit margins also increased at an exceptional rate (Chart 3-36). With a share of nearly 33 percent, agriculture is the largest domestic sector supplying the food industry. In 2022, the operating surplus increased by 47 percent in agriculture, while the annual profit margin was only 6 percent on average between 2013 and 2019. Despite the fact that a mere 2.2 percent of food inputs are linked to transport and storage, these activities recorded the highest profit growth in 2022 with 247 percent, so overall this supply sector also contributed significantly to food inflation. Among the suppliers to the food industry, extremely high sectoral profit margins were also recorded in the paper manufacturing sector (143 percent) and in administration (50 percent). As for its level, in 2022 the agricultural operating profit was 2.6 times higher than the average profit level for 2013–2019 and twice as high as the profit level of even the more profitable years. The ratio was 2.9 for paper manufacturing, 2.0 for administration and 1.5 for transport and storage.

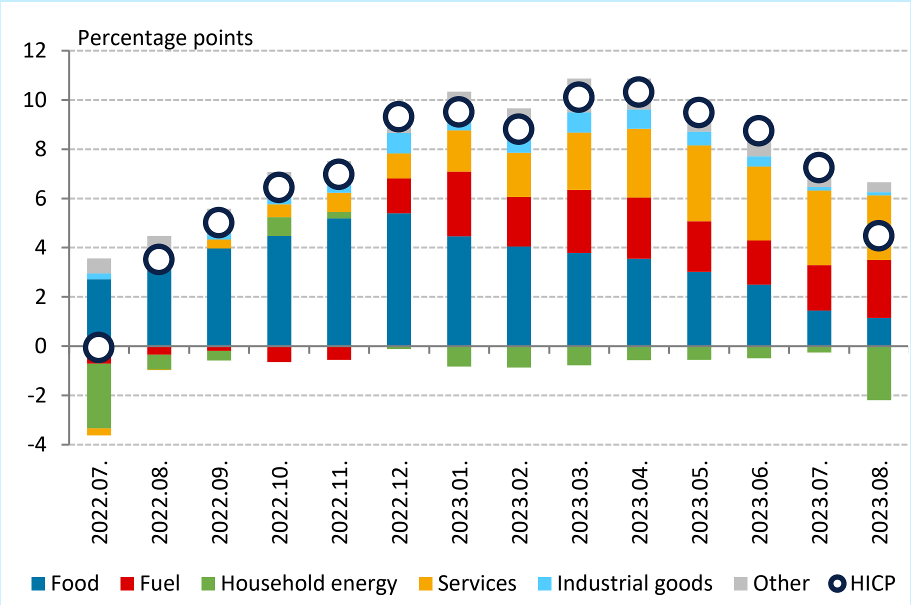
The surge in food inflation was a consequence of successive increases in profit margins across the entire production chain. In 2022, five out of the ten sectors with the highest profit growth were directly or indirectly linked to food production as suppliers. Successive actors along the production chain raised prices above their costs and, taken together, they caused ood prices to rise at a rate exceeding the regional average.

Box 3-3: The role of retrospective pricing in the services sector

Due to the ongoing disinflationary process in Hungary since the beginning of the year, annual inflation fell by 9.3 percentage points between January and August. A slowdown in price inflation was seen across a wide range of products and services, and by the summer months it affected all product groups.

Market services was the last product group where inflation started to decline in June, a phenomenon unprecedented in the past two years. However, inflation in this product group is declining more slowly than in other product groups and still remains high: market services contributed the most to Hungary's inflation surplus in comparison to other Visegrad countries in August (Chart 3-37). Moreover, in contrast to other product groups, Hungary's service inflation gap compared to the region has widened further since the beginning of the year, despite the general turnaround in inflation in January.

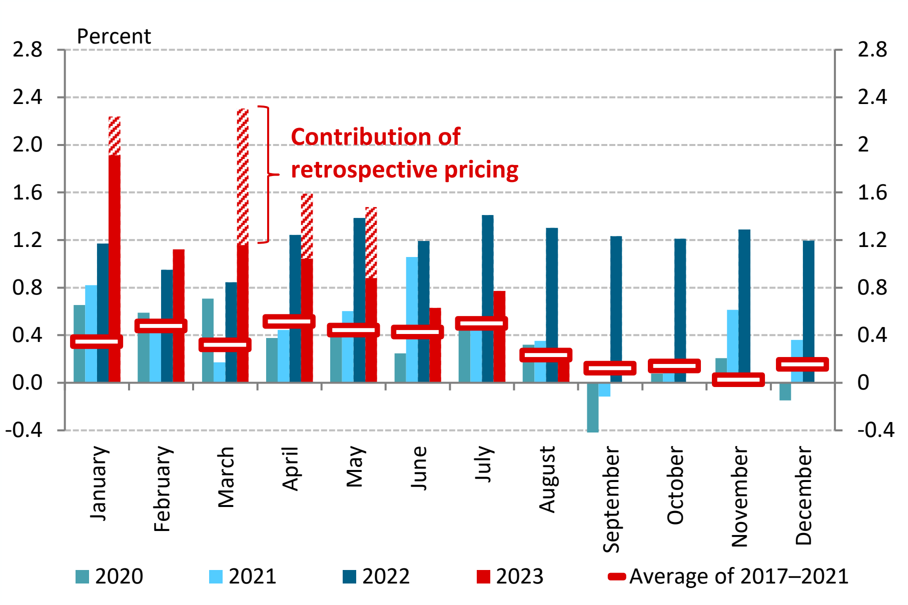
Chart 3-36: Decomposition of Hungary's inflation gap compared to the V3 countries



Note: HICP inflation, percentage and contributions, percentage point. The V3 countries are Czechia, Poland and Slovakia.
Source: Eurostat

The disinflationary turning point in services was also delayed by retrospective repricing in the sector at the beginning of the year. Companies providing residential telecommunication services significantly changed their previous pricing practices this year, resulting in much higher prices for services. At the end of summer and in autumn 2022, the companies concerned amended their General Terms and Conditions (GTC), introducing an automatic re-pricing mechanism and price indexation from 2023 onwards. Price indexation is retrospective, with the automatic rate of price change always based on average inflation in the previous year. A similar mechanism has been in place for banking services for some time. Without the retrospective repricing practices of these two sectors, services inflation would be much lower. In the spring months, market services prices rose by 1.5–2.3 percent on a monthly basis. Without retrospective repricing those values would have been 0.7 percentage point lower on average between March and May (Chart 3-38).

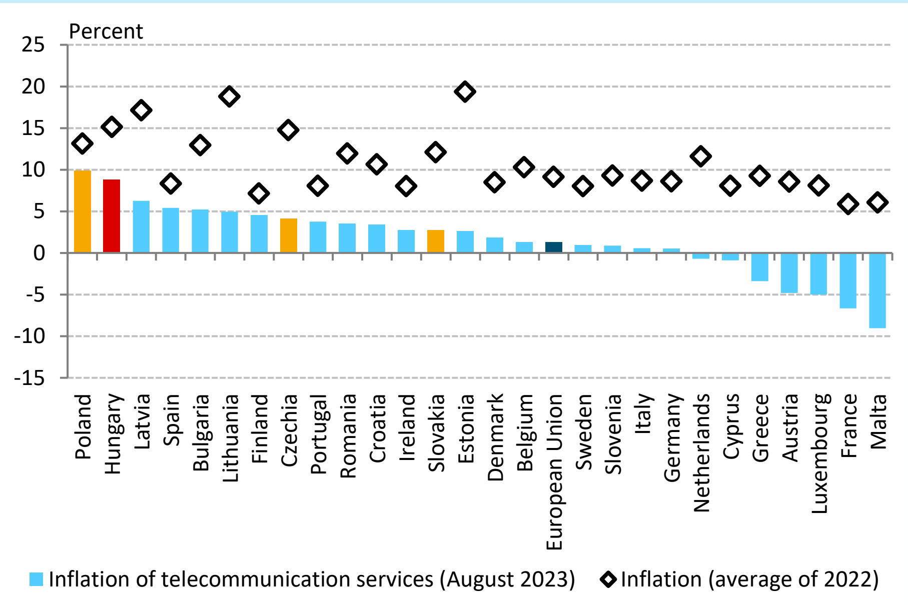
Chart 3-37: Market services inflation in Hungary



Note: Seasonally unadjusted, tax-adjusted monthly change.
Source: HCSO, MNB

As a result of the telecommunication sector's new retrospective re-pricing practices, the price of telecommunication services in Hungary has increased at one of the fastest rates in the European Union. In August 2023, the price of telecommunication services increased by 8.8 percent on an annual basis, almost seven times the average increase observed in the European Union (1.3 percent), and more than one and the half times the average for the region (5.6 percent) (Chart 3-39). It is also clear that telecommunication companies in Hungary and the region have been the most likely to incorporate last year's inflation into their prices. In Hungary, the August price increase for telecommunication services reached more than 55 percent of the 2022 inflation rate, while that rate was below 15 percent on average in the European Union.

Chart 3-38: Inflation in telecommunication services in European Union countries



Note: Based on HICP data.
Source: Eurostat

Retrospective repricing can slow down the disinflationary process and projects a further rise in corporate profits. Automatic price increases based on the previous year's inflation do not necessarily reflect the actual cost increases for companies, as they incorporate factors that are less relevant to the operating costs of the sector. This leads to price increases that exceed company costs, which in turn feeds company profits. According to a flash report published by on of the largest residential telecommunication operator, the company's revenues increased by 13.3 percent in the first half of this year, while operating costs grew by 9.0 percent compared to the same period last year. More than 70 percent of the 16.5-percent increase in revenue in the second quarter, largely due to price increases, augmented operating profit, which rose by 32.3 percent in 2023 H1.

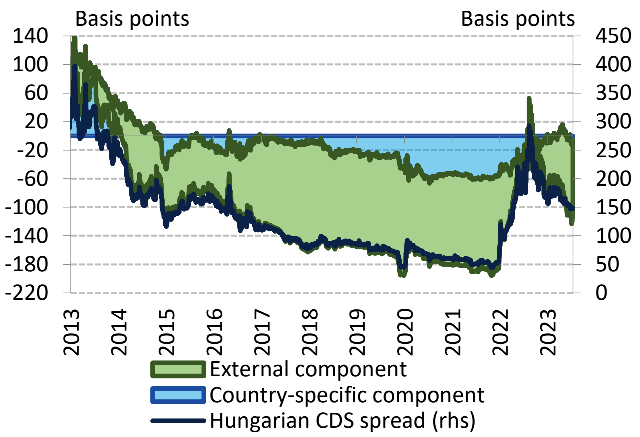
Strong competition, rather than retrospective repricing, can contribute to achieving price stability as soon as possible. Competition between businesses ensures that firms only change their prices in line with changes in their justified costs, thus preventing the phenomenon of profit-driven inflation.

4. Financial markets and interest rates

4.1. Domestic financial market developments

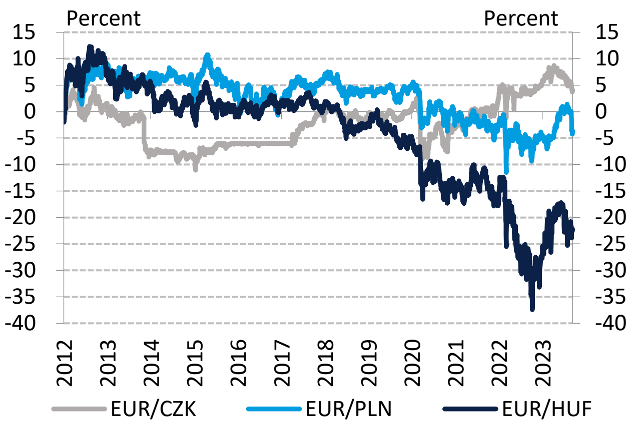
On the whole, sentiment in the developed and emerging financial and capital markets deteriorated in the past quarter. From the end of June, the persistently tight interest rate environment created market turbulences, while global investor sentiment deteriorated along with risk appetite on the back of macroeconomic news from China and volatile commodity prices. In early August, the downgrading of the US debt rating also had a negative impact on financial markets, leading to higher market volatility. Despite the rise in developed market yields, domestic interbank and short government bond yields fell substantially, which was supported by the disinflationary environment and the start of monetary policy normalisation. The forint depreciated versus the euro over the period, in line with mounting fears of recession and geopolitical risks, as well as uncertainty about the sustainability of the budget deficit and EU funding. Overall, the forint depreciated by 2.5 percent against the euro, lagging behind the 3.2-percent depreciation of the Czech crown and the 4.6-percent depreciation of the Polish zloty.

Chart 4-1: Components of the 5-year Hungarian CDS spread



Note: The decomposition method used can be found in the MNB Bulletin: Variance decomposition of sovereign CDS spreads, Kocsis–Nagy (2011). Source: Bloomberg, MNB

Chart 4-2: Exchange rates in the region



Note: Changes compared to beginning of 2012. Positive values denote appreciation of the currency. Source: Bloomberg

4.1.1. Risk assessment of Hungary

The country's credit spreads have been on a downward trend for most of the past period, with some minor upticks. During the period, Hungary's spread reached a one-year low and, on the whole, it declined by 15 basis points, to 148 basis points (Chart 4-1). Country-specific factors slightly increased the CDS premium, but this was offset to a greater extent by international factors.

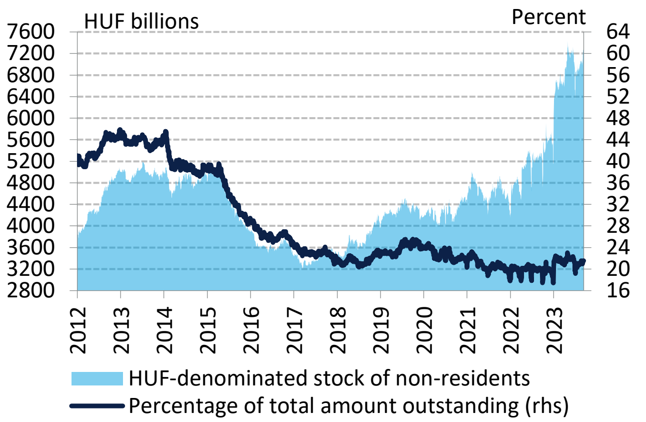
4.1.2. Developments in foreign exchange markets

The forint typically weakened against the euro during the period, with several corrections interrupting this dynamic. While the exchange rate once again approached its March low (393.5), there was a moderate but steady strengthening at the end of the period, with an overall depreciation of 2.5 percent compared to the end of June. Across the region, the Czech crown weakened by 3.2 percent, the Romanian leu by 0.2 percent and the Polish zloty by 4.6 percent during the period, with the latter due to a larger-than-expected interest rate cut (Chart 4-2). The exchange rates of regional currencies were influenced by international investor sentiment, monetary policy actions by developed and regional central banks, and incoming macro data. All the currencies of the region depreciated against the US dollar during the period.

4.1.3. Government securities market and changes in yields

The amount of HUF government securities held by foreigners did not change significantly in the past quarter (Chart 4-3). Non-residents' holdings of HUF government securities increased by HUF 10 billion over the period to HUF 7,268 billion. The ownership share of HUF government bonds also dropped and is now around 21.6 percent.

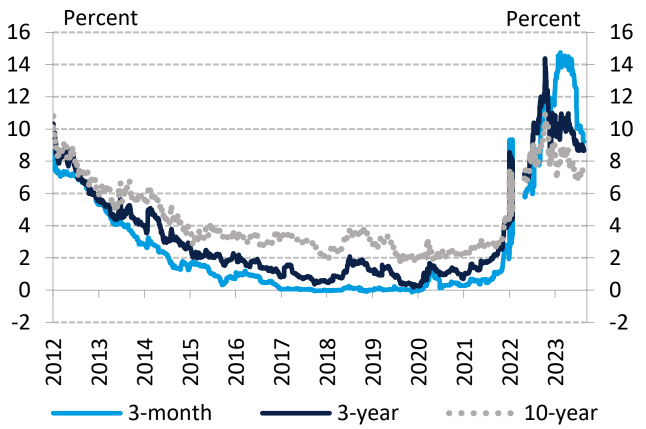
Chart 4-3: HUF-denominated government securities held by non-residents



Note: The chart shows the stock of T-bills and T-bonds.

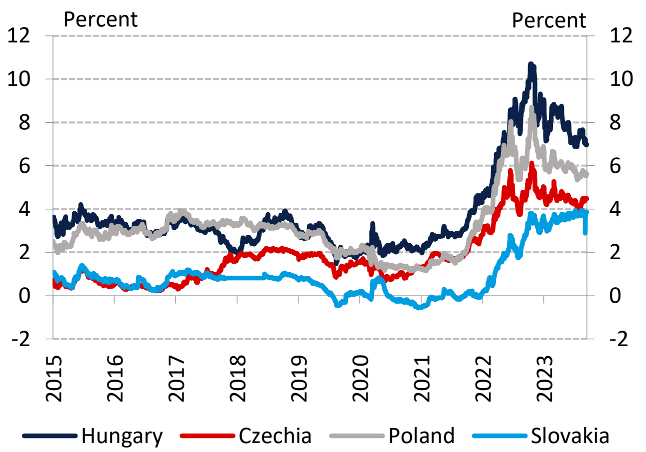
Source: MNB

Chart 4-4: Yields of benchmark government securities



Source: Government Debt Management Agency (ÁKK)

Chart 4-5: 10-year government benchmark yields in CEE countries



Source: Bloomberg

At most of the government bond auctions during the period, bids in excess of the announced amount were admitted by the ÁKK. In some cases, however, the amount issued was smaller than announced. Average auction yields on the short end fell in line with secondary market yield levels, while there was a slight increase in long yields. Average yields at the 3-month DKJ auction fell by 71 basis points, while average yields at the 10-year auction rose by 21 basis points.

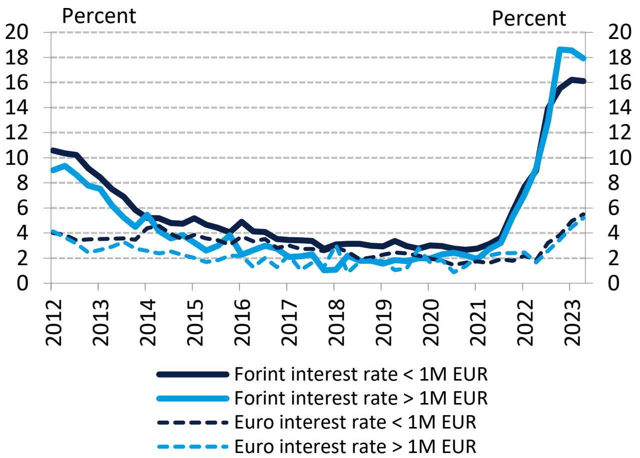
Both the short and middle parts of the government bond market yield curve saw a decline in yields, while the long end of the curve saw a slight increase, reducing the inversion of the yield curve (Chart 4-4). Over the period as a whole, the 5-year yield fell by 70 basis points, while the 10-year yield rose by 15 basis points. In interbank yields, the 3-month BUBOR decreased by 256 basis points to 12.62 percent.

Long benchmark yields in the region evolved differently over the period (Chart 4-5). The Czech 10-year yield rose by 20 basis points, the Romanian yield by 23 basis points, the Slovak yield by 19 basis points, while the Polish yield fell by 10 basis points.

4.2. Credit conditions of the financial intermediary system

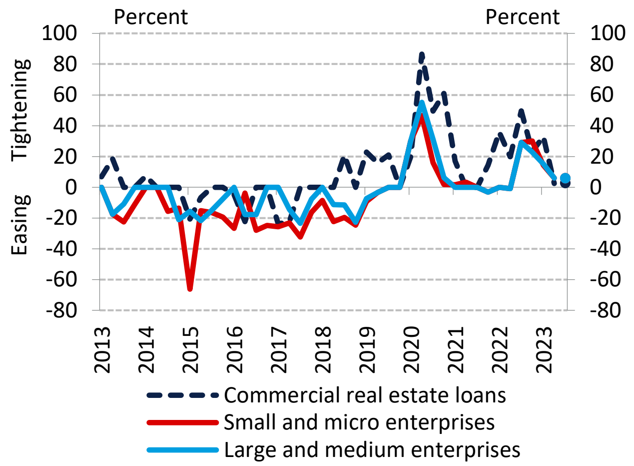
In 2023 Q2, corporate credit conditions remained practically unchanged in all company size categories as well as for commercial real estate loans, and no significant shifts in credit standards are expected in the near future. In the second quarter, a small group of banks reported a pick-up in demand for corporate loans. Banks' lending capacity remains high, both in terms of capital and liquidity. Banks have not made any significant changes to standards for housing loans and consumer loans. However, looking ahead to the next six months, a limited tightening of standards is expected in both sub-markets. Banks reported a decline in demand for housing loans and an increase in demand for consumer loans in the second quarter, and looking ahead, they expect demand to increase in both sub-markets. The average financing cost of newly contracted forint corporate loans and the average cost of newly contracted long-term fixed-rate housing loans declined slightly over the period.

Chart 4-6: Interest rates on new corporate loans



Note: Loans with variable interest rate or with up to 1-year initial rate fixation. From 2015, based on data net of money market loans exceeding EUR 1 million.
Source: MNB

Chart 4-7: Changes in credit conditions in corporate sub-segments



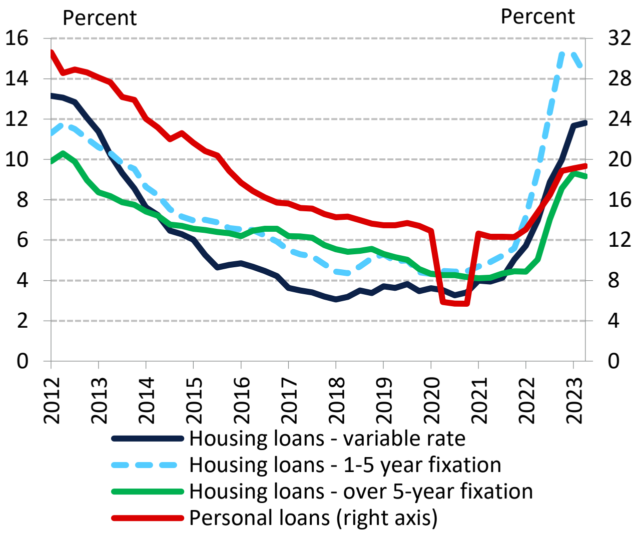
Note: Net percentage balance of respondents tightening/easing credit conditions weighted by market share. Forecast for 2023 Q3 and 2023 Q4.
Source: MNB, based on banks' responses

4.2.1. Corporate credit conditions

In 2023 Q2, HUF lending rates declined as borrowing costs fell. Excluding money market transactions, the average interest rate level on new corporate HUF loans with interest rates variable within one year (largely market-based loans) decreased by 11 basis points in the case of low-amount loans and by 62 basis points in the case of high-amount loans, compared to the previous quarter. As a result, the average interest rate on forint loans was 17.5 percent at the end of June (Chart 4-6). In the second quarter, the interest rate level on low-amount euro loans increased by 54 basis points, while for high-amount euro loans it rose by 73 basis points, and thus the average cost of funds of euro loans stood at 5.2 percent at the end of June. The larger increase in corporate euro interest rates is due to the rise in interbank interest rates in the euro area.

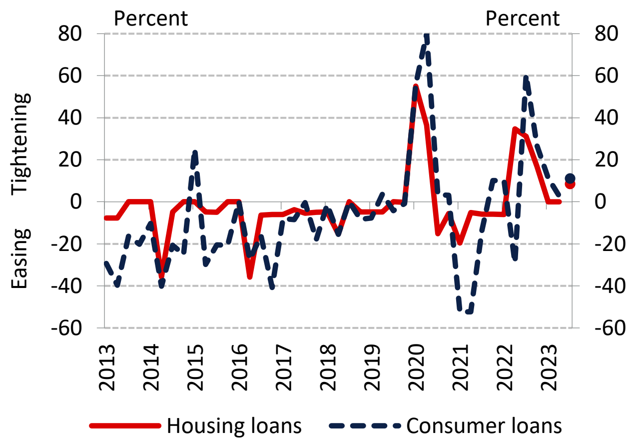
Overall, banks did not make significant changes to corporate credit conditions in the second quarter. In the second quarter, a net 6 percent of banks participating in the Lending Survey tightened their credit conditions for large and medium-sized enterprises, while a net 6 percent tightened lending conditions for small and micro enterprises. Industry-specific problems and the deterioration of the economic outlook were identified as the drivers behind the tightening, while competition and market share targets were specified as factors pointing towards easing. Responses by banks suggest that the liquidity and capital position have not affected credit conditions, and the lending capacity of banks remains high. Looking ahead to the next six months, no significant change in corporate credit conditions is expected: a net 3 percent, 6 percent and 6 percent of banks anticipate tightening in commercial property financing, for large and medium-sized enterprises and for small and micro enterprises, respectively (Chart 4-7). In terms of loan demand, a net 14 percent of banks reported an increase in demand in the second quarter and expect a further recovery in the next six

Chart 4-8: Annual percentage rate of charge on new household loans



Note: Quarterly average of lending rates on newly disbursed loans. In the case of loans with 1-5 year fixation, the most recent data cover loans subsidised by the state, in which case the interest rate shown in the figure also includes the subsidy paid by the state.
Source: MNB

Chart 4-9: Changes in credit conditions in the household sector



Note: Net percentage balance of respondents tightening/easing credit conditions weighted by market share. Forecast for 2023 Q3 and 2023 Q4.
Source: MNB, based on banks' responses

months as the interest rate environment gradually returns to normal.

4.2.2. Household credit conditions

The average interest rate on long-term fixed-rate mortgages fell during the quarter. The average APR of housing loan contracts concluded in 2023 Q2 for loans with interest rates fixed for 1-5 years (many of which are subsidised-rate loans related to the Home Purchase Subsidy Scheme for Families) decreased by 102 basis points to 14.2 percent, while for loans with interest rates fixed beyond 5 years, the average cost of borrowing reached 9.2 percent in June 2023 after a drop of 76 basis points (Chart 4-8). In 2023 Q2, the volume of certified consumer-friendly housing loans available with an at least 5-year interest rate period accounted for 46 percent of quarterly new housing loan issuance, while the share of loans fixed for at least 10 years reached 80 percent. The average smoothed APR on personal loans rose by 21 basis points to 19.3 percent at the end of the period under review.

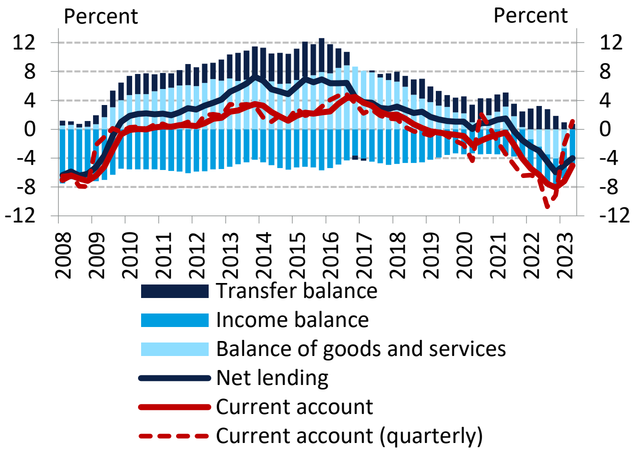
Standards for housing loans did not change substantially and no change is expected in the near future. According to responses to the Lending Survey, banks did not change the standards of housing loans in 2023 Q2, with a net 8 percent of banks planning to tighten the terms in 2023 H2 (Chart 4-9). As far as consumer loans are concerned, a net 3 percent of credit institutions tightened access to credit in the second quarter, with a higher share of banks, i.e. a net 11 percent of them, planning to continue to tighten standards in the consumer credit market in 2023 H2. A net 15 percent of banks registered lower demand for housing loans, while 91 percent of banks perceived rising demand for consumer loans in the second quarter. Looking ahead, demand is likely to increase in both sub-markets.

5. Balance position of the economy

5.1. External balance and financing

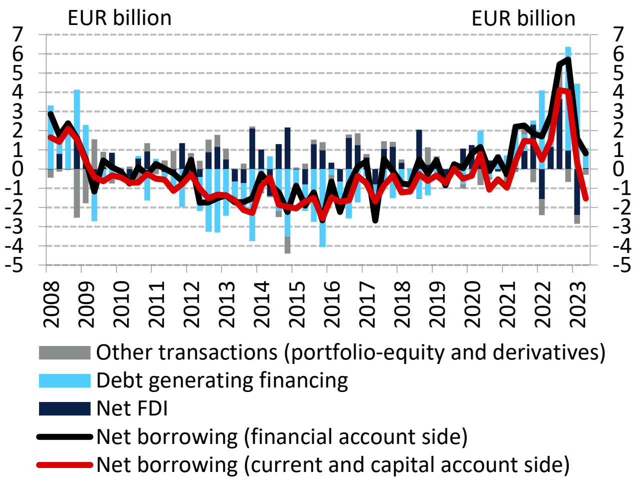
In 2023 Q2, the four-quarter current account deficit shrank to 5 percent of GDP and the net borrowing of the economy dropped to 4 percent of GDP. The narrowing of the trade balance was partly due to the decline in energy prices and the adjustment in domestic demand. On the financing side, debt financing decreased, while the stock of net FDI remained stagnant. In 2023 Q1, the country's external debt-to-GDP ratios increased slightly.

Chart 5-1: Changes in net lending and its components



Note: Cumulated four-quarter values, as a percentage of GDP.
Source: MNB

Chart 5-2: Structure of net lending



Note: The net lending from the financial account side corresponds to the sum of current account, capital account and the BOP balance of statistical errors and omissions. From an economic point of view, fundamental developments in the dynamics of debt ratios are not affected by the switch between gold bullion and unallocated gold accounts and thus this technical effect is excluded from the time series.
Source: MNB

5.1.1. Changes in Hungary's external balance position

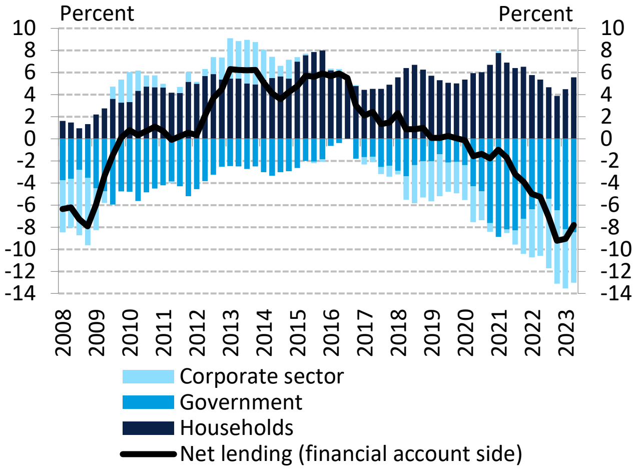
In 2023 Q2, the improvement in external balance indicators continued, mainly in relation to the external trade balance (Chart 5-1). Based on preliminary monthly data, the narrowing of the current account deficit in the second quarter was primarily due to the improvement in the trade balance, including an improvement in the terms of trade, in parallel with lower energy prices. Adjustments in energy consumption and reduced imports due to a decrease in consumption and investment, as well as the rising production of road vehicles and batteries, along with buoyant exports due to a fall in inventories, contributed to the improvement in the goods balance. The services balance also continued to rise slightly, partly related to the fading effect of the pandemic. In contrast to this, rising interest expenditure and expanding corporate profits increased the deficit on the income account. The surplus of the transfer balance fell below 1 percent of GDP.

5.1.2. Financing trends

In 2023 Q2, the improving external position was reflected in a reduction in debt inflows, while net FDI stock due to transactions remained unchanged (Chart 5-2). Following a decline in 2023 Q1 – as a one-off occurrence – net FDI stock remained flat in the second quarter. At the same time, net portfolio equity investment continued to drop, mainly due to rising outward investment by resident actors. Debt inflows declined in the second quarter, with the general government and the banking system raising a small amount of funds, while corporates reduced their external debt substantially.

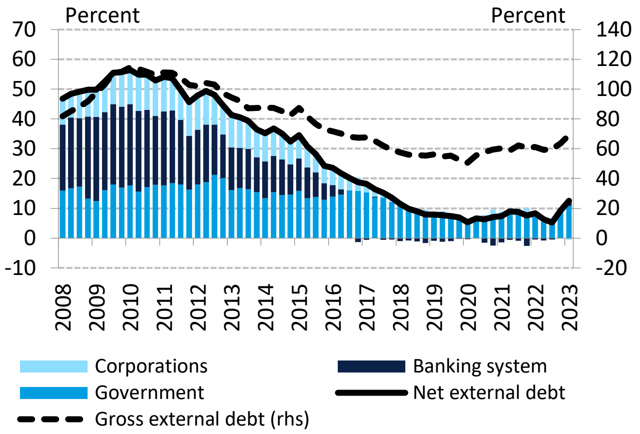
In 2023 Q2, government financing needs continued to increase slightly, which was more than offset by improving net financial savings in the private sector (Chart 5-3). In the second quarter, the net position of the general government continued to deteriorate moderately, reflecting a decline in consumption-related tax revenues and rising interest expenditure. Falling domestic consumption, with nominal incomes continuing to grow rapidly, contributed to an improvement in the net financial position of the private

Chart 5-3: Decomposition of net lending by sectors



Note: Four-quarter cumulation, as a percentage of GDP.
Source: MNB

Chart 5-4: Development of net external debt by sectors



Note: From an economic point of view, fundamental developments in the dynamics of debt ratios are not affected by the switch between gold bullion and unallocated gold accounts and thus this technical effect, as well as intercompany loans, are excluded from the time series. As a percentage of GDP.
Source: MNB

sector. Households have continued to restrain consumption, resulting in a significant improvement in the net position of the sector. The decreasing net borrowing of companies was attributable to a high profit income and declining investment activity.

In 2023 Q1, the economy's net external debt rose to over 12 percent of GDP (Chart 5-4). The evolution of the indicator was largely driven by transactions and to a lesser extent by revaluations, which could not be offset by nominal GDP growth. Gross external debt rose to over 69 percent of GDP, again mainly due to debt inflows.

Box 5-1: What does the trend in net errors and omissions in the current account suggest?

The external financial balance of an economy can be analysed from both a real economy perspective and a financing perspective. According to the *real economy approach (top-down financing)*, the sum of the current account and the capital account reflects the relationship between income and expenditure: domestic consumption and investment in excess of income shows the need for external financing. As a mirror image of the above, the *financing (bottom-up) approach* relies on the financial balance sheet to show the nature of the increase or decrease in external debt that financed the excess spending over income, where financing was required.

While those two approaches should theoretically result in the same net borrowing, the two approaches to external position calculated from the data collections tend to differ. The aggregate difference appears in the item 'Net errors and omissions', **NEO**) in the balance of payments statistics. The discrepancy may be due to a number of factors, the most important of which are the following:

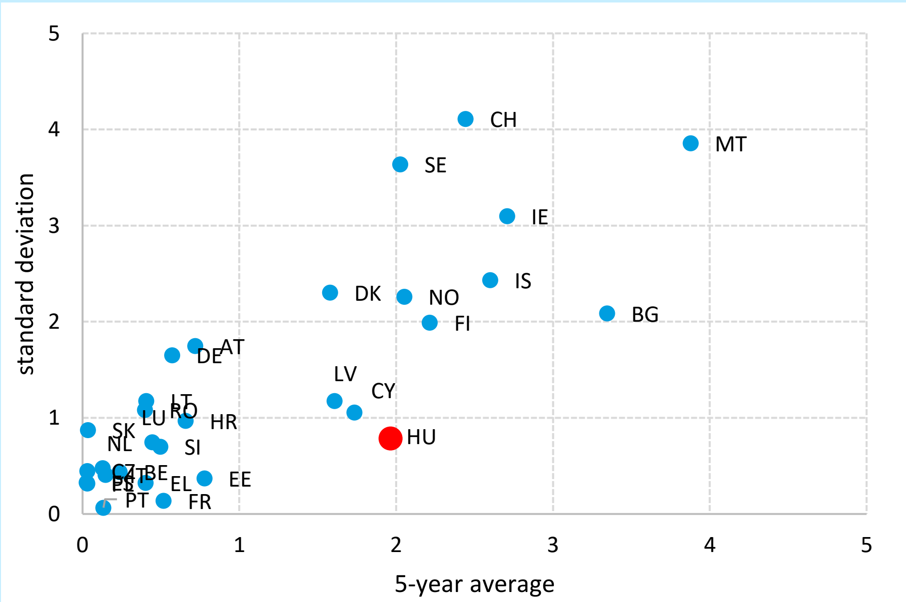
- data are derived from several sources, which may differ slightly in methodology/coverage;
- monitoring may not be complete or may vary over time;
- the treatment of exchange rates may be different;
- errors on the part of data providers may occur.

The existence of NEO does not therefore basically suggest that transactions are not observed, but that they are either only considered in a single perspective or are not measured in a uniform way.

In Hungary, net errors and omissions in the current account balance has recently exceeded its multi-year average, but that was also the case in most European countries. From 2014 to mid-2020, it typically ranged around 1 to 2 percent of GDP (i.e. the net lending in the financial account was that much lower than the net lending in the current and capital account). In 2023 Q2, however, its share of GDP rose to over 3 percent, while it also increased in most European countries. A significant portion of this increase was due to the extremely high volatility of exchange rates and important foreign trade commodities. The balance of errors and omissions in the domestic current account has increased, despite the MNB's continuous improvement of statistics in recent quarters (e.g. by including new data sources to better capture the evolution of the foreign assets of households and non-financial corporations) in order to reduce the discrepancy. At the same time, data revisions from institutions (HCSO, MNB, etc.) or companies can significantly reduce the size of errors and omissions (the four-quarter absolute value of NEO was reduced by about 1 percent of GDP with the September 2022 release).

The value of the NEO balance in the Hungarian current account is relatively high by international standards, while its volatility is low compared to other countries. The value of NEO in Hungary has averaged 2.0 percent of GDP over the past 5 years, placing it in the top quartile of European countries. However, compared to the group of high-index countries, variability was lower (Chart 5-5), suggesting that the Hungarian NEO, unlike that of other high-index countries, is typically stable, meaning that the factors that are probably incorrectly measured by the statistic are fewer and less volatile in nature.

Chart 5-5: Absolute value of the average value of net errors and omissions and the variability of annual values



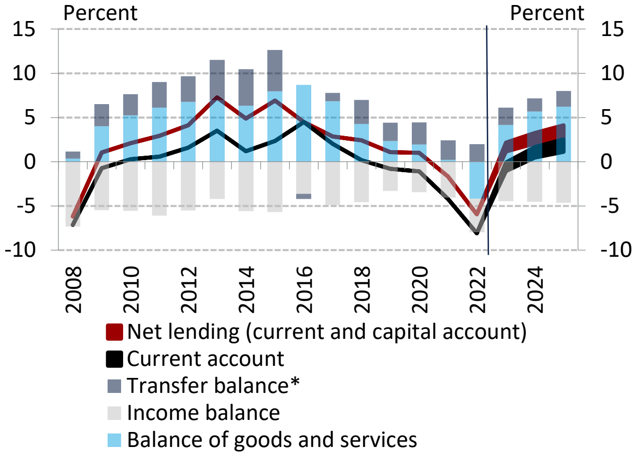
Source: Eurostat

5.2. Forecast for Hungary's net lending position

Due to an improvement in the external trade balance, the current account deficit will fall below 1 percent of GDP in 2023, before turning into surplus in 2024. The improvement in the trade balance this year is linked to a decline in energy bills on the import side and a slowdown in domestic demand, while exports remain strong. Normalisation of the global economic environment and investments commencing production after 2024 point to a further improvement in Hungary's external position. According to financing trends in various sectors, the net position of the private sector will turn into a surplus, mainly due to slowing domestic demand. At the same time, government financing needs continue to slowly decline.

In 2023, the current account deficit is projected to shrink below 1 percent of GDP on the back of a significant improvement in the external balance (Chart 5-6). Following a deficit of 8 percent of GDP last year, the current account balance has risen significantly in 2023. While the improvement in the external balance is largely linked to decreasing energy prices and the adjustment of energy consumption, the drop in domestic consumption, the fall in investment and the decline in inventory accumulation have also played a substantial part. In addition to the above, exports are also contributing to an improvement in the trade balance, thanks to strong road vehicle and battery production. From 2024, as a result of new export capacities built up in the recent period and a normalising global economic environment, favourable external trade trends may continue. On the whole, the current account deficit is expected to fall below 1 percent of GDP in 2023 and then turn into surplus. Near the middle of the forecast horizon, the capital account balance will decline as the EU fiscal cycle comes to an end, but it will continue to make a substantial contribution to the country's net lending.

Chart 5-6: Evolution of net lending



Note: As a percentage of GDP. * The sum of the balance of the current transfers and the capital account balance.
Source: MNB

Table 5-1: Development of trade balance as a percentage of GDP

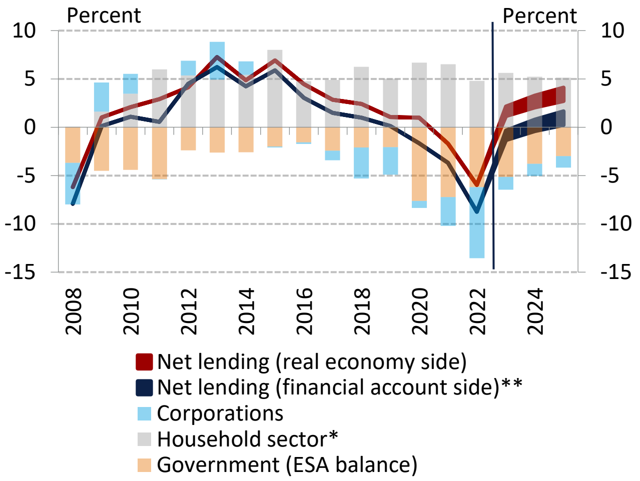
	2021	2022	2023	2024	2025
Balance of goods	-2.9	-8.9	-0.5	1.0	1.5
Balance of energy	-4.4	-9.7	-4.2	-3.9	-3.6
Balance of other goods	1.5	0.8	3.8	4.9	5.1
Balance of services	3.3	4.7	4.6	4.7	4.7
Trade balance	**0.2**	**-4.2**	**4.1**	**5.7**	**6.2**

Source: HCSO, MNB

The reduction in the energy deficit contributes significantly to the improvement in the external balance. Falling energy prices, the adjustment of economic sectors and the rise in nominal GDP are substantially reducing the energy deficit as a share of GDP. Robust exports and lower domestic demand are reflected in a growing surplus in the other goods balance. The energy balance may continue to gradually improve in the coming years (Table 5-1).

Based on sectoral financing trends, the net position of the private sector will return to the positive domain in 2023, while the general government deficit will narrow (Chart 5-7). While the budget deficit will continue to decline during the year, its level remains relatively high, which is a result of the underperformance of consumption-related tax revenues and the rising interest burden. Households' net financial savings will rise, in line with the slowdown in consumption and household investment this year, and then gradually decline from 2024 as domestic consumption picks up. The net position of companies will be significantly reduced by falling corporate investment and a substantial increase in corporate profits, supported by lower energy

Chart 5-7: Changes in the savings of sectors



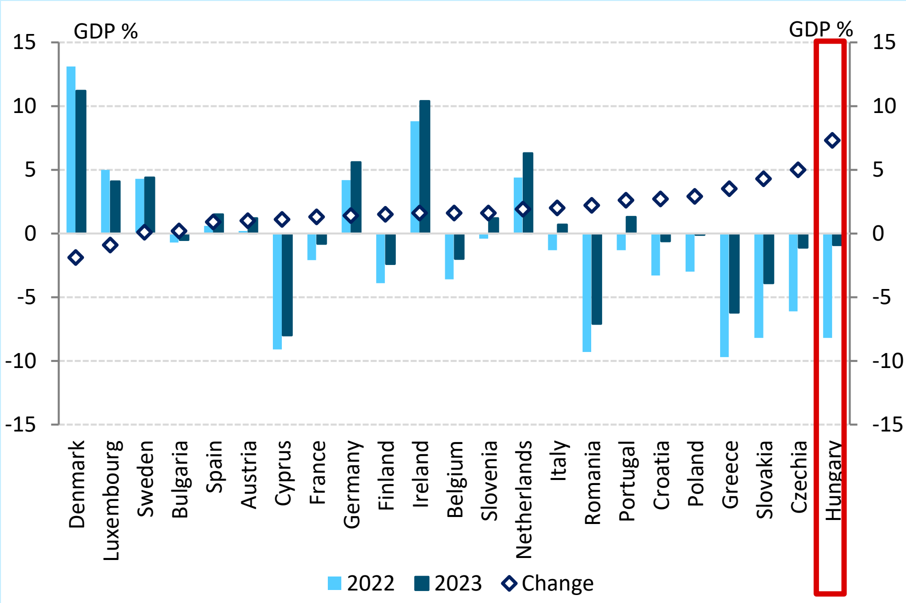
Note: As a percentage of GDP. * Net financial saving of households does not contain the pension savings of those who return to the public pension system. The net savings in the financial accounts differ from the data in the chart. ** We expect that 'Net errors and omissions' (NEO) will return to the historical average.
Source: MNB

prices. In the second half of the forecast horizon, the inflow of EU funds and a recovering external environment will further reduce the sector's financing needs.

Box 5-2: Background of the significant improvement in the external balance

The historically strong improvement in the external balance expected in 2023 is mainly driven by an increase in the trade balance. In 2022, the trade deficit exceeded 4 percent of GDP, whereas a similar surplus was accumulated in the first half of 2023. This improvement of 8 percentage points of GDP was even stronger than the significant improvement seen in the balance after 2008 and is the highest in the EU (Chart 5-8). Due to a substantial improvement in the external balance, including both energy and non-energy items, the current account balance is expected to fall below 1 percent of GDP in 2023, after last year’s low, while a surplus is projected over the following years. The significant improvement in the external balance is primarily due to positive trends in trade: Some of these components and their positive effects on the annual current account balance are discussed in more detail in this box.

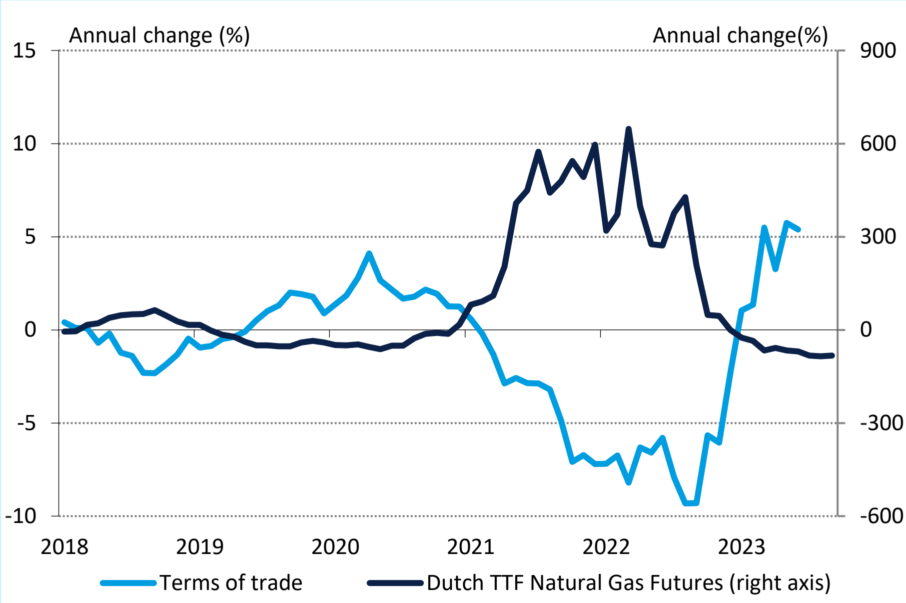
Chart 5-8: The expected change in the current account balance according to forecasts



Note: The 2023 forecast is based on Bloomberg data (no data were available for the Baltic countries and Malta),for Hungary: MNB forecast.
Source: Eurostat, Bloomberg, MNB

The decline in energy prices has led to a steady improvement in the terms of trade since the beginning of the year, supporting the energy balance (Chart 5-9). Last year, mineral fuels accounted for a total deterioration of nearly EUR 10 billion in the domestic trade balance. In the first half of this year, imports in the product group dropped by an average of 28.6 percent on an annual basis in euro terms, contributing more than EUR 2 billion to the improvement in the balance. The improving energy balance was influenced by more favourable prices, a subdued economic activity, the adjustment of energy consumption and the different timing of purchases compared to last year.

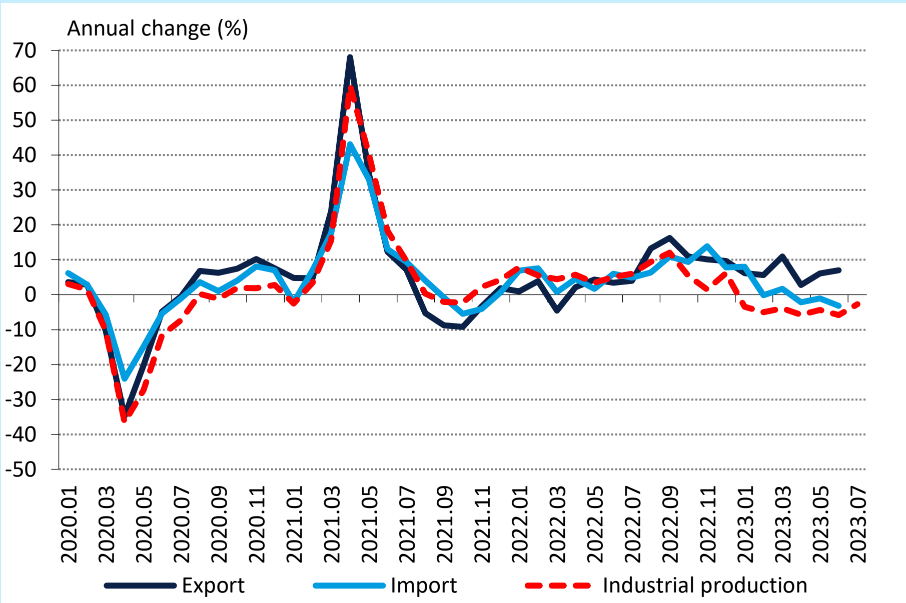
Chart 5-9: Development of the annual change in the terms of trade and the natural gas price



Note: The terms of trade are calculated on the basis of monthly merchandise trade statistics; the latest available data is from June. The gas price is calculated based on quotations for the Dutch TTF natural gas price.
Source: Bloomberg, HCSO

The volume of goods exports expanded by 6.4 percent in the first half of the year, despite the decline in industrial production, while the volume of goods imports increased by only 0.5 percent on an annual basis (Chart 5-10). The decline in imports, which have been falling since the second quarter, has been driven by a continuing decline in domestic demand items with a high import content. Household consumption showed a steady decline last year, while in the first half of this year it fell by 1.8 percent on an annual basis. The volume of gross fixed capital formation declined on an annual basis in the last quarter of the previous year already, while in the first half of this year it fell by 11.3 percent. The import content of domestic demand is relatively high, with almost 40 percent of household consumption and 50–60 percent of investment coming from abroad, which means that the reduction in these items has a positive effect on the goods balance.

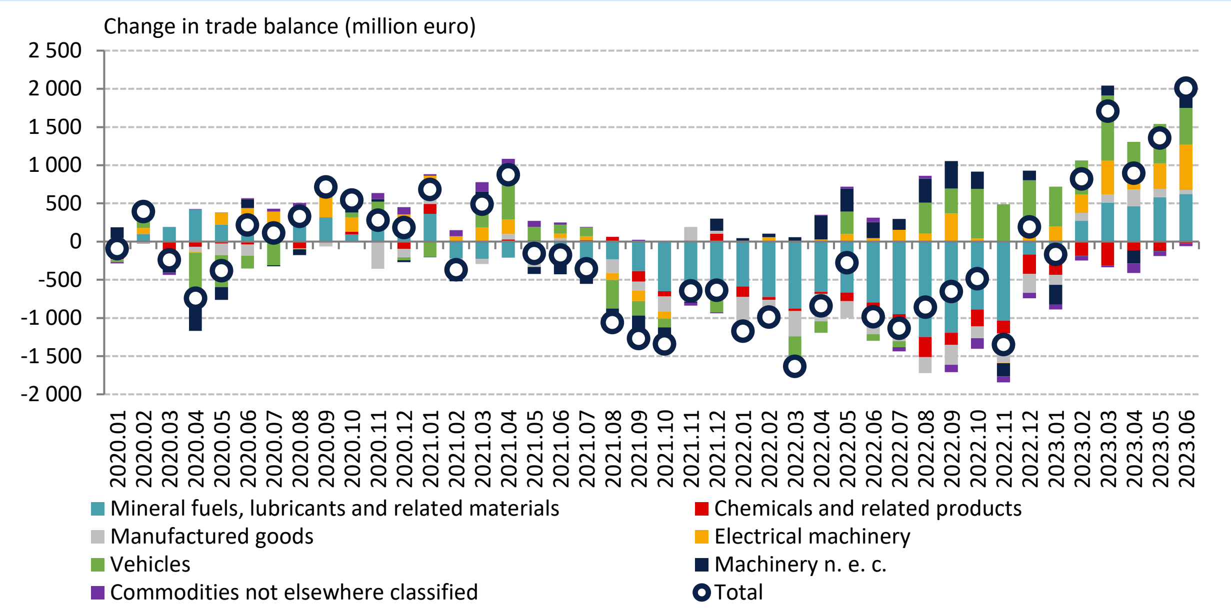
Chart 5-10: Annual changes in the volume of goods exports, goods imports and industrial production



Note: Based on seasonally and calendar-adjusted data. In the case of exports and imports, the latest available data is from June.
Source: HCSO, MNB

Exports of road vehicles and electrical equipment (including batteries) have continued to expand significantly (Chart 5-11). The value of exports of vehicles increased by an average of 41.5 percent, while the value of exports of electrical machinery increased by an average of 29.5 percent in the first half of the year. The value of exports of machinery and transport equipment, which account for nearly 60 percent of the value of the total export of goods, grew by an average of 23.8 percent per month this year compared to the equivalent period in the previous year, thus accounting for a total of nearly EUR 5 billion in the improvement in the trade balance.

Chart 5-11: Annual changes in the merchandise trade balance by product group



Note: The other category is the sum of food and live animals, beverages and tobacco, non-edible raw materials, animal and vegetable oils and fats. Processed products includes products from the wood and paper industry, textile industry, metal industry, rubber and plastic industry.
Source: HCSO, MNB

Due to the impact of external trade trends, at the annual level, the deficit on the current account balance is expected to decline from 8.1 percent in 2022 to below 1 percent of GDP in 2023. On an annual basis, one of the main factors behind the improvement in the current account balance may be an improvement in the terms of trade, if energy prices remain considerably lower compared to the previous year. In the first half of this year, both falling energy prices and the adjustment in energy consumption contributed to a significant reduction in the energy deficit. As a result, the energy deficit may fall from 9.7 percent of GDP in 2022 to below 4 percent of GDP.

However, there are risks to the improving path of the current account balance. In our baseline forecast, the current account deficit is expected to fall to below 1 percent of GDP in 2023. However, if domestic demand picks up significantly faster than expected in the second half of the year, or if a major rise in energy prices occurs again, the improving trend in the external balance could be reversed. In the longer term, further measures to improve competitiveness are required in order to ensure that the current account balance supports convergence in a sustainable manner.

5.3. Fiscal developments

The cash deficit of the budget reached HUF 3,299 billion by the end of August, equal to 97 percent of the appropriation and 80 percent of the cash deficit target of HUF 4,100 billion in the ÁKK's updated financing plan. The accrual-based deficit was high in the first half of the year and reached 7.3 percent of GDP based on the preliminary financial accounts. According to our forecast, the deficit may decrease in 2023 compared to previous year's value of 6.2 percent of GDP, but based on the substantially less favourable-than-expected macroeconomic path and budget data in the first half of the year, in the absence of further measures this year's deficit may exceed the 3.9 percent budget deficit target and could amount to 5.2 percent of GDP. The exact level of the deficit will be strongly influenced by the end-of-year expenditure control in 2023. The government's deficit target is 2.9 percent of GDP in 2024 and 1.9 percent of GDP in 2025. The debt-to-GDP ratio may decline close to 70 percent by the end of 2023 and then fall to 66 percent by the end of the forecast horizon.

5.3.1. Main balance indicators

The accrual deficit of the general government sector may reach 5.2 percent of GDP in 2023 based on our forecast, and the deficit targets are 2.9 percent in 2024 and 1.9 percent in 2025 (Table 5-2). In 2023, the deficit is expected to decline markedly compared to the previous year, partly as a result of revenue-increasing and expenditure-reducing measures announced in parallel with the 2024 budget bill, and partly due to the significant decline in global energy prices. As a result of lower growth in tax revenues due to slower-than-expected consumption, the deficit may exceed the target in 2023. Higher interest expenditure will make it more difficult to achieve the deficit target. In 2024, the deficit is expected to decline further compared to previous years. Based on budgetary planning, the deficit could reach the level of the GDP ratio corresponding to the re-opened Maastricht criterion, but based on this year's macroeconomic and budgetary base fulfilment is also surrounded by negative risks. In 2025, a primary surplus of close to 2 percent of GDP may be required in order to reduce the deficit to 1.9 percent of GDP in line with the fiscal target (Chart 5-12).

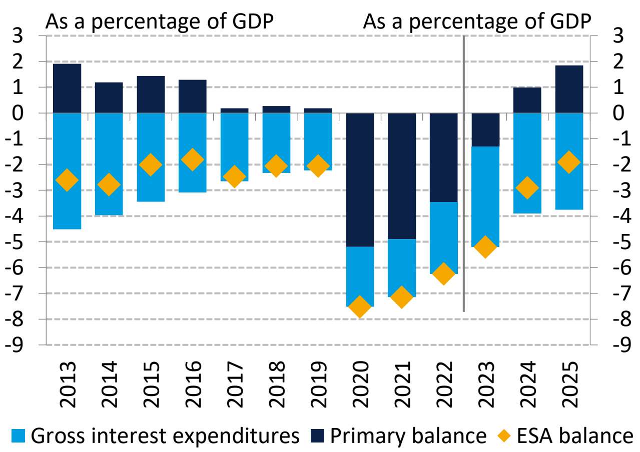
Table 5-2: General government balance indicators

	2022	2023	2024	2025
ESA balance	-6.2	-5.2	-2.9	-1.9
Primary ESA balance	-3.4	-1.3	1.0	1.9
Gross interest expenditures	2.8	3.9	3.9	3.8

Note: Government expectations, as a percentage of GDP in 2024-2025.

Source: HCSO, Convergence Programme of Hungary 2023–2027, MNB

Chart 5-12: Changes in the fiscal balance and government interest expenditures



Note: Government expectations as a percentage of GDP in 2024-2025.

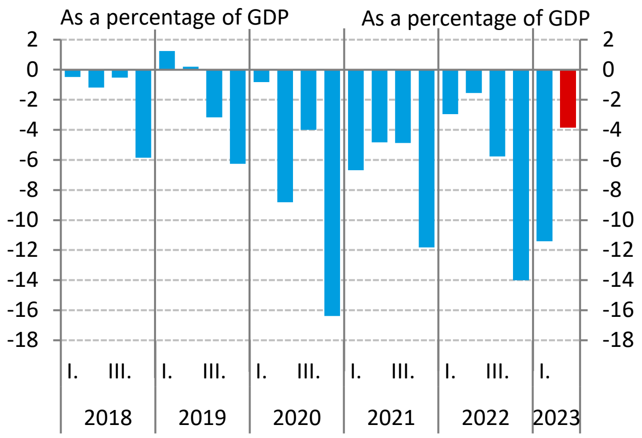
Source: HCSO, Convergence Programme of Hungary 2023–2027, MNB

5.3.2. 2023 balance

According to our forecast, the deficit may amount to 5.2 percent of GDP in 2023 and thus exceed the budget deficit target of 3.9 percent. The cash deficit of the budget reached HUF 3,299 billion by the end of August, equal to 97 percent of the appropriation and 80 percent of the cash deficit target of HUF 4,100 billion in the ÁKK's updated financing plan. Based on preliminary financial accounts data published by the MNB, the H1 accrual deficit was 7.3 percent of half-year GDP (Chart 5-13). Based on our forecast, the deficit may exceed the target, which is mainly caused by tax revenues falling short of the appropriation due to a less favourable macroeconomic path than expected.

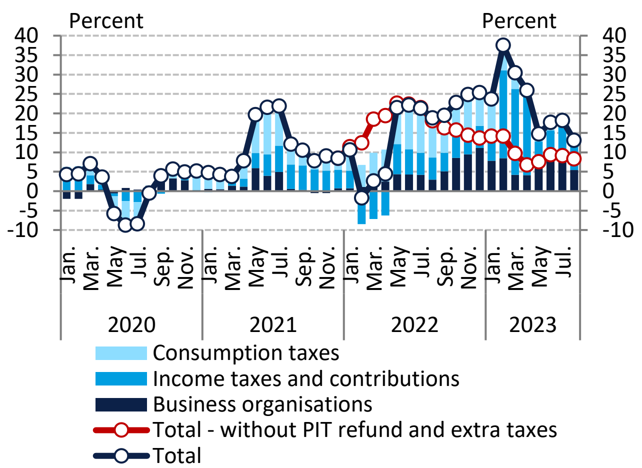
Tax revenues exceeded last year's monthly average by nearly 20 percent until August due to nominal wage growth,

Chart 5-13: Accrual balance of the general government sector



Note: The 2023 Q1 and Q2 data shows the net lending capacity of general government as reported in the preliminary financial accounts published by the MNB.
Source: HCSO, MNB

Chart 5-14: Evolution of tax and contribution revenues in 2020–2023, year-on-year, 3-month moving average



Source: HST, MNB

the impact of the PIT refund on 2022 revenues and extra profit taxes. Net of the impact of special taxes and the tax refund, revenue growth reached 9 percent (Chart 5-14). The increase in VAT revenues nearly halted in August due to the decline in consumption and retail sales, i.e. net VAT revenues increased in the first eight months of the year by only 0.1 percent compared to same period of the previous year.

While the decline in the budget deficit compared to previous years may be supported by a decline in government investment, it is hampered by a rise in government interest expenditure due to high inflation. Interest expenditure will rise by 1.1 percentage points to 3.9 percent in 2023, from 2.8 percent in the previous year, mostly driven by interest payments on inflation-linked government bonds.

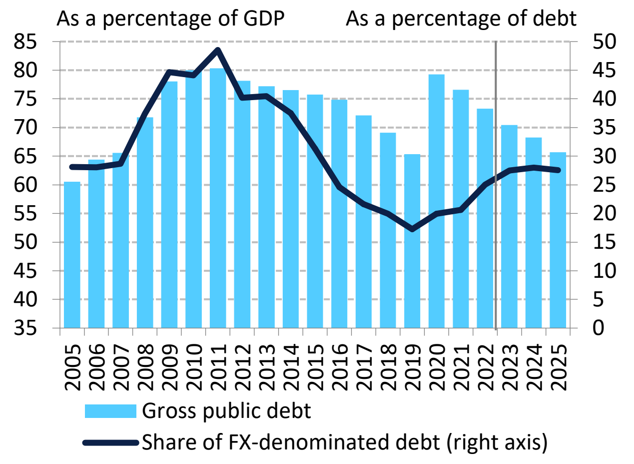
5.3.3. Balances for 2024 and 2025

In 2024, the budget deficit is expected to reach 2.9 percent of GDP, based on the deficit target set in the Budget Law adopted in July. The reduction in the deficit is supported mainly by the revenue and expenditure measures announced in parallel with the budget bill, and by the fall in energy prices, but is hampered by the high government interest expenditure.

In 2024, a number of taxes imposed on extra profits in 2022 will remain in full, while several taxes will be maintained in part. Tax revenues will be further boosted by an increase in the excise duty on fuels in line with the EU minimum level and a social contribution tax on interest income. From September 2023, fines for offences and traffic fines have increased and from January 2024, the obligation to pay tolls will be extended to several additional road sections. Since the adoption of the Budget Law, the carbon dioxide quota tax has been temporarily introduced for the years 2023 and 2024, and the regulation of certain taxes affecting extra-profit taxpayers (income tax on energy suppliers, mining tax) has also been amended. The introduction of the extended producer responsibility scheme will reduce budget revenues, as companies will be able to deduct the EPR fee paid from their environmental product charge liability. However, it will also affect expenditure, as some public service companies will no longer need subsidies.

Achievement of the government deficit target will also be facilitated by measures on expenditure, as the rules on applying for the Family Housing Subsidy and prenatal baby support loans will be tightened. From January 2024, the maximum amount of the baby support loan will increase

Chart 5-15: Gross public debt forecast



Source: MNB, ÁKK

from HUF 10 million to HUF 11 million, while eligibility will be limited to couples where the wife is under 30. Over a period of one year during the transitional period from 1 January 2024 to 1 January 2025, women aged 30-40 will also be eligible if they can prove pregnancy. The amount of the Family Housing Subsidy (CSOK) has been increased to families raising children or undertaking to have children in villages. In towns and cities, however, the CSOK subsidy will not be available after 1 January 2024.

In the absence of a budget law, a further drop is expected in the deficit path, based on the government's expectations for 2025.

5.3.4. Risks surrounding the baseline scenario

The evolution in tax revenues is significantly affected by macroeconomic developments. EU funding remains uncertain, while the current level of energy prices carries slightly positive risks. On the revenue side, the fiscal balance is subject to risks mainly stemming from slowing revenue dynamics from consumption taxes. Considerable uncertainties still exist concerning the potential receipt of EU transfers. The advance and receipt of funds affect the level of government debt, while the timing of their implementation affects the accrual balance and real economic developments. At the currently expected energy prices, maintaining the cuts in utility costs remains a significant budgetary expenditure. At the same time, since the planning of the budget was based on higher global energy prices compared to the currently foreseeable market prices, the current prices entail positive risks compared to earlier appropriations.

The achievement of deficit targets is also surrounded by risks in 2024–2025 based on this year's macroeconomic developments and budget data. The lower-than-expected level of tax revenues may continue in the following years, which would hinder achievement of the targets.

5.3.5. Expected developments in public debt

According to the preliminary financial accounts of the MNB, the gross public debt-to-GDP ratio reached 75 percent at the end of 2023 Q2. The debt ratio decreased by 1.7 percentage points compared to the same period of the previous year, while it increased by 1.7 percentage points compared to the value at the end of 2022. The rise in government debt was driven by high net issuance, which suggests that the larger part of annual issuance has already been completed in the first half of the year. The foreign currency ratio of central government debt rose to 25.2 percent in the first half of 2023 from 25 percent at the end of last year, due to the issuance of foreign currency bonds.

A 10-forint change in the EUR/HUF exchange rate results in an approximately 0.5-percentage point change in the government debt-to-GDP ratio. During this year and the next, the foreign exchange ratio of central government debt may further increase due to significant foreign currency issuances, while by 2025 the central foreign exchange ratio may return to a declining trajectory.

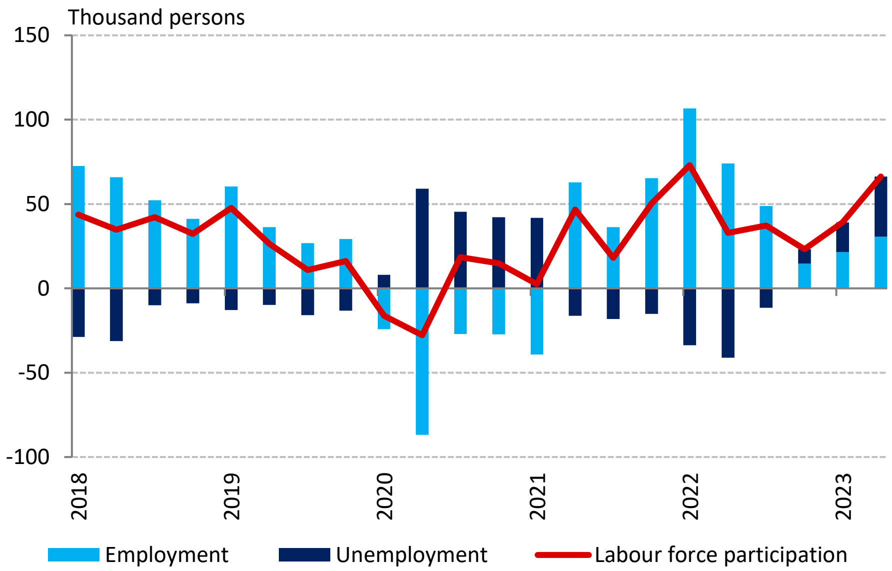
According to our forecast, the gross public debt-to-GDP ratio will drop to close to 70 percent by the end of 2023, while a steady decline in the debt ratio is assumed over our projection horizon. The public debt ratio will decline due to robust nominal GDP growth and the expected moderation in debt issuance in the second half of the year. The public debt ratio may decline by an annual average of almost 2.5 percentage points over the projection horizon, falling to 66 percent by the end of 2025 (Chart 5-15)

6. Special topic

Reasons behind the rise in labour force participation

Due to a rise in labour force participation and labour demand, the number of people in employment and the number of unemployed have risen simultaneously on an annual basis over the past three quarters. Compared to 2022 Q2, employment levels have increased by 31,000 and reached a historical high. At the same time, the number of unemployed increased to a similar extent, by 36,000 (Chart 6-1). A parallel rise in unemployment and employment may be explained by the fact that, as a result of the rising costs of living, an increasing number of people now want to work, and thus a number of previously inactive people are induced to enter the labour market. The phenomenon of labour hoarding can also play a role in maintaining a high level of employment.

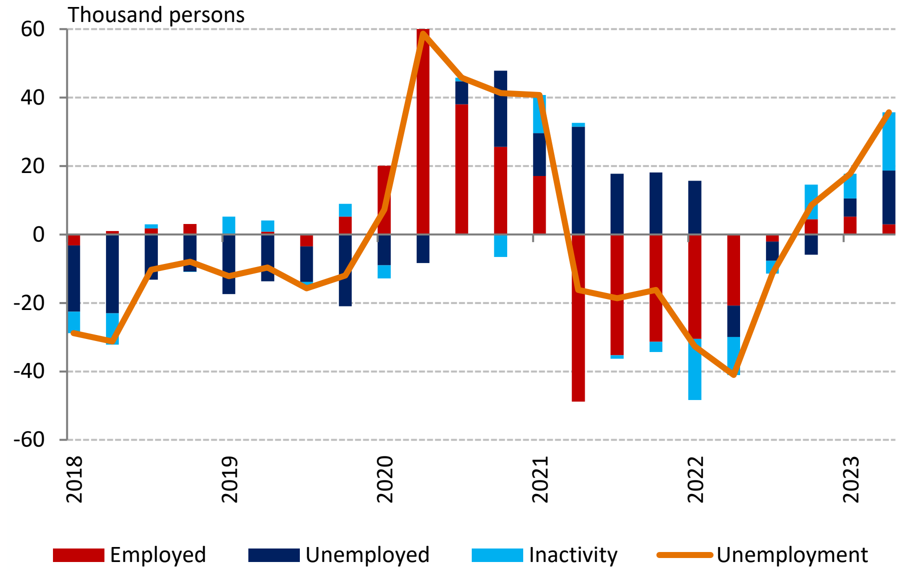
Chart 6-1: Breakdown of the change in the number of active people compared to the same period of the previous year



Source: HCSO

A closer look at the composition of the rise in unemployment reveals that the number of previously inactive persons who have become unemployed has increased significantly (Chart 6-2). Nearly half of the 36,000-person increase in unemployment (i.e. 17,000 persons) was due to previously inactive people entering the labour market. The largest group of people leaving inactive status are those who did not seek employment because of care responsibilities or family reasons (8,000). Their entry to the labour market is due to the rising costs of living. The number of persons unemployed for over a year has also increased significantly (16,000) compared to a year before, suggesting that certain groups have recently found it increasingly difficult to find work, which has led to a rise in long-term unemployment. This partly reflects mismatches in skills and geography.

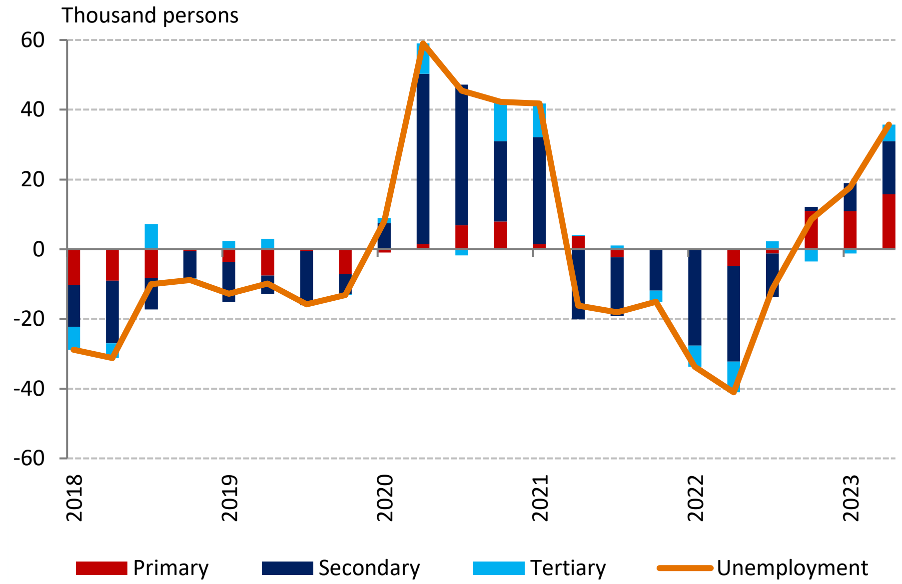
Chart 6-2: Annual change in the number of unemployed by their previous labour market status of a year earlier



Source: HCSO

The number of unemployed persons increased mainly among low-skilled workers (Chart 6-3). By education, the year-on-year increase that started in 2022 Q4 initially affected almost exclusively those with primary education only. This year has also seen an increase in the group of people with secondary education. The growth rate for those with tertiary education is significantly lower compared to the other two groups.

Chart 6-3: Breakdown of the change in the number of unemployed by education, compared to the same period of the previous year



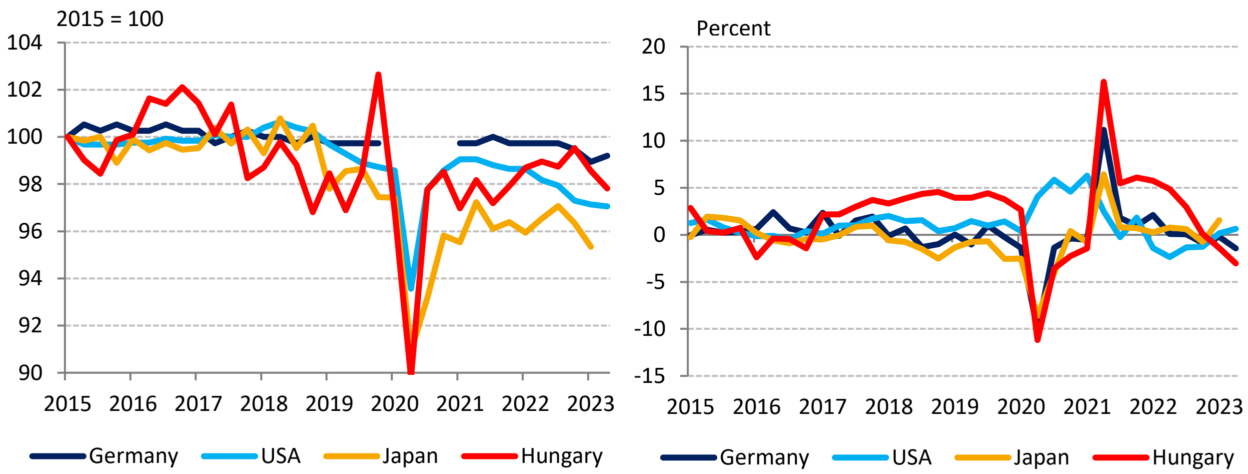
Source: HCSO

In ageing societies, companies are finding it increasingly difficult to fill vacancies, as the working age population declines. At a time of economic downturn, companies may respond to that challenge by labour hoarding. Labour hoarding means the practice of maintaining a larger workforce than necessary, even though this may lead to loss of productivity in the short term. That practice may be driven by the desire to gain a competitive advantage in the post-recession recovery by not having to spend as much resources on recruitment and training as their competitors. That consideration may be all the more important in a tight labour market. The extent of labour hoarding largely depends on how long employers expect the economic downturn to last, how much they fear future labour shortages, and how high they think the costs of laying off existing staff and recruiting and training new workers are.

While the phenomenon of labour hoarding is difficult to identify, a decrease in actual hours worked and in labour productivity are signs that might indicate such developments. The number of hours worked has started to decline in several economies, which is also reflected in a deterioration in labour productivity. Among developed economies, the significant drop in hours worked during the COVID-19 pandemic was generally quickly corrected by labour markets, which returned to levels close to, and in some countries even above, the pre-pandemic levels. Following the outbreak of the war between Russia and Ukraine, a number of advanced economies slid back into recession, however, there has been no similar adjustment in the number of people employed, while a decline in actual hours worked in recent quarters is apparent (Chart 6-4). Although the decline has been moderate, it is also observed in several leading economies as well as in Hungary.

Labour productivity also deteriorated in the US and Japan in 2022. In those countries, however, as recovery started, productivity has returned to an upward trend. On the other hand, in Germany, a country more exposed to the effects of the war and the energy crisis due to its geographical proximity, productivity has continued to decline, as the German economy remains in recession, while employment remains at historically high levels in a very tight labour market. In the case of Hungary, productivity also declined on an annual basis over the last two quarters, which can also be explained by labour hoarding.

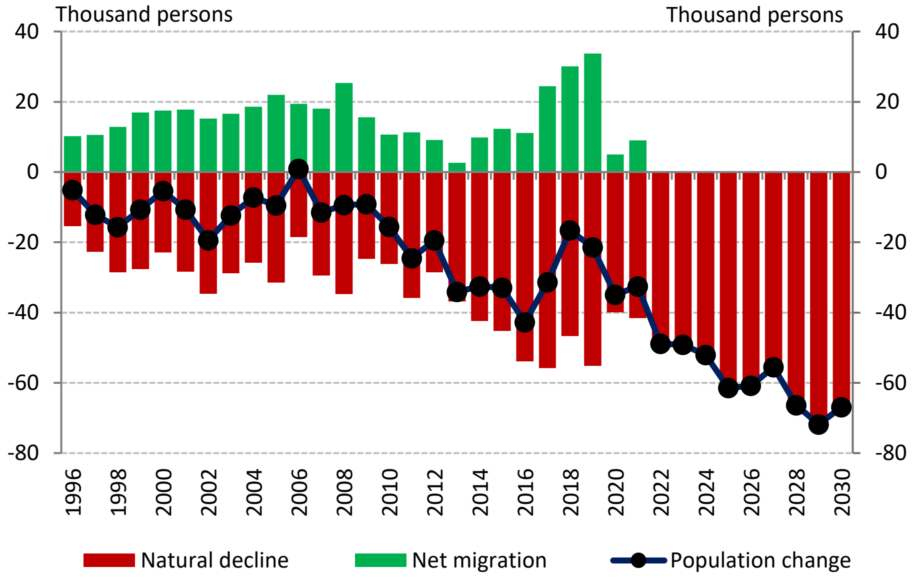
Chart 6-4: Evolution of the number of hours worked (left panel) and productivity compared to the same period of the previous year (right panel)



Note: Manufacturing sector in case of Japan and the USA, Germany has not published data on hours worked for 2020.
Source: Eurostat, FRED, HCSO

One of the main reasons for labour hoarding is demography. The working-age population aged 15–74 has been shrinking at an increasing rate since the turn of the millennium. The current decade is characterised by a particularly large decline in the 15–74 age group, since it is in these years that people born in the so-called 'Ratkó era' reach the upper limit of the statistical working age. The headcount of age cohorts entering the labour market is decreasing relative to those leaving, which foreshadows the persistence and worsening of recruitment problems already experienced by Hungarian companies, including an increase in recruitment costs. According to our estimate based on Eurostat's population projections (and not taking into consideration the effects of migration), the working-age population will decrease by more than 450,000 persons until 2030 due to the ageing and natural change of population. Over the past decades, the natural decline in the working-age population has been largely offset by net immigration, mainly from within the Carpathian Basin (Chart 6-5).

Chart 6-5: Impact of natural population change and immigration on the population aged 15–74



Note: Starting from 2022, the Eurostat population forecast is shown. The balance for the age group between 1995 and 2008 is an estimate based on the net immigration balance of the entire population.
Source: Eurostat

Overall, it can be concluded the combined rise in employment and unemployment is due to a number of factors, most notably the phenomenon of labour hoarding and the surge in entries to the labour force, mainly among the low-skilled, as a result of the increasing costs of living. In the long term, labour shortages will remain the most pressing problem due to adverse demographic trends. The decline in the working-age population will act as an increasingly strong constraint on employment growth over the decade.

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Mátyás Hunyadi

(23 February 1443 – 6 April 1490)

He ruled from 1458 to 1490 as King of Hungary, and had been Czech king from 1469 and Prince of Austria from 1486. Hungarian tradition regards him as one of the greatest Hungarian kings whose memory is preserved in many folk tales and legends. He is also known as Matthias Corvinus, King Matthias the Just or officially as Matthias I, but commonly he is simply denoted as King Matthias.

His father, János Hunyadi, the regent of Hungary, was one of the most outstanding military leaders and strategists in the country's medieval history who triumphed at the Battle of Nándorfehérvár in 1456. Matthias' mother was Erzsébet Szilágyi, and he had an elder brother, László Hunyadi. The future king was brought up by his mother and nurse until the age of six, and was subsequently placed under the supervision of his tutors. János Hunyadi did not have a chivalrous education in mind for his son: first, it was a Polish humanist, Gergely Szánoki who introduced him to the realm of knowledge, then this task was assigned to János Vitéz. Mátyás was brought up and educated in a humanistic spirit to become a versatile and curious-minded person who had been taught canon and constitutional law, arts and Latin. In addition to Hungarian, he also spoke German and Czech.

After the death of László V, his uncle, Mihály Szilágyi, and the armed forces supporting Hunyadi exercised pressure to have Matthias crowned as King of Hungary on 24 January 1458. Even in the early years of his reign Matthias had troubles both with the magnates of the country and Emperor Frederick III of the Holy Roman Empire. As the king was still a minor, parliament appointed Mihály Szilágyi to act as regent on his behalf. However, Matthias did not tolerate any guardianship and pushed his uncle to the background who devised a plot against the king in response. Returning from battle with the Turks, the king had the rebels captured and he imprisoned his uncle in the castle of Világos.

Upon his ascension to the throne the annual income of the treasury hardly exceeded 110 to 120 thousand forints. During his rule spanning thirty-two years the king managed to multiple revenues from taxes. Considering the average of the taxes levied, less the revenues from the Czech and Austrian provinces, this yearly amount approximated 628,000 forints and may as well reached 900,000 gold forints in the most prosperous years. This was still much less than the annual revenue of the western powers of the age. In order to raise the low income of the treasury, reform-like and comprehensive financial actions were needed. Matthias recognised that a centralised, nationwide financial system was the only solution to the problem, and that the royal revenues had to be directed to a single person, the treasurer. The reforms of Matthias were adopted by parliament and his decrees were promulgated on 25 March 1467.

We can get a glimpse of the cultural life in the royal court, which represented the elite of European civilisation at the time, at the partly reconstructed Royal Palace in Visegrád. The most distinguished pieces of the cultural legacy of Matthias are the Corvinian books, richly illustrated volumes of the former royal library.

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