INFLATION REPORT

2023
DECEMBER

'... 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 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 and Fiscal Analysis. 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 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 14 December 2023.

Contents

Contents ... 5
The Monetary Council's key findings related to the Inflation Report ... 7
1 Inflation and real economy outlook ... 12
1.1 Inflation forecast ... 12
1.2 Real economy forecast ... 17
1.3 Labour market forecast ... 25
2 Effects of alternative scenarios on our forecast ... 29
3 Macroeconomic overview ... 34
3.1 Assessment of international macroeconomic developments ... 34
3.2 Analysis of the production and expenditure side of GDP ... 39
3.3 Labour market ... 48
3.4 Cyclical position of the economy ... 52
3.5 Costs and inflation ... 53
4 Financial markets and interest rates ... 59
4.1 Domestic financial market developments ... 59
4.2 Credit conditions of the financial intermediary system ... 63
5 Balance position of the economy ... 65
5.1 External balance and financing ... 65
5.2 Forecast for Hungary's net lending position ... 67
5.3 Fiscal developments ... 69
6 Special topics ... 73
6.1 Impact of real interest rates on consumption and investment ... 73
6.2 Factors determining the rise in government interest expenditure ... 79
List of charts and tables ... 83

List of boxes

Box 1-1: Assumptions applied in our forecast ... 14
Box 1-2: Inflationary effect of the new waste management system ... 16
Box 1-3: How will the recovery in consumption follow the increase in real wages? ... 22
Box 3-1: Performance of the Hungarian economy in international comparison ... 44
Box 3-2: Economic impact of the minimum wage increase ... 49
Box 3-3: Developments in food prices ... 56
Box 4-1: Companies hold ample liquid financial assets ... 61

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.

In 2023 Q3, economic growth decelerated in the European Union and China, and accelerated in the United States. The short-term outlook remains subject to downside risks, which are exacerbated by the generally tense geopolitical situation.

In the third quarter US GDP expanded by 3.0 percent year-on-year, while the annual growth registered by China was 4.9 percent. In the same period, the economy of the EU stagnated in annual terms. The output of Germany, Hungary's most important trading partner, fell by 0.4 percent year-on-year in 2023 Q3.

In the European Union, the annual consumer price index (CPI) 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. By November, inflation eased to 3.1 percent in the United States and 2.4 percent in the euro area. In November, prices rose by 6.7 percent in Romania, 7.3 percent in the Czech Republic and 6.6 percent in Poland in annual terms. In advanced economies, however, core inflation indicators declined at a slower pace.

Over the past quarter, the world's leading central banks maintained their policy rates. In the region, after cutting its key policy rates in September and October, the Polish central bank did not adjust the base rate in November and December. The Czech and Romanian central banks maintained their policy rates during the previous quarter.

In the United States, the Federal Reserve (Fed) maintained the target range of the federal funds rate at 5.25–5.50 percent. According to central bank communication, the possibility of an interest rate cut might be considered as a next step. Moreover, the Fed continued the gradual reduction of its balance sheet. The European Central Bank (ECB) decided to keep its key policy rates unchanged following the rate increase in September. According to the central bank, the current rates are at a level that, if maintained for a sufficiently long period, they may contribute significantly to inflation's return to the target. In December, the central bank announced its intention to reduce the PEPP portfolio by EUR 7.5 billion per month on average in 2024 H2.

The Bank of Poland kept its policy rate unchanged at 5.75 percent at its November and December policy meetings, after cutting it by 75 basis points in September and 25 basis points in October. The Czech and Romanian central banks left their policy rates unchanged at 7.0 percent. The Magyar Nemzeti Bank cut the effective rate by a total of 250 basis points between September and November 2023. It completed the normalisation of the extraordinary interest rate environment with a 100-basis-point cut in the effective interest rate in September, after which it reduced the key policy rate by 75 basis points in both October and November, bringing the rate down to 11.5 percent in November.

Investor sentiment has improved, overall, in the past quarter. The conflict in Gaza temporarily increased investor risk aversion in the first half of the period, but the avoidance of a US government shutdown and more moderation in inflation than expected in the US and Europe also contributed to the improvement in money market sentiment.

In the previous quarter, asset prices were primarily influenced by expectations regarding the interest policies of major central banks and the conflict in Gaza. In the US, the avoidance of a government shutdown also had a positive impact on investor sentiment. Market pricing suggests that both the Fed and the ECB have reached the top of their interest rate paths and looking ahead, expectations for the beginning of interest rate cuts in 2024 have strengthened.

European gas prices have moderated in the recent period, while oil prices dropped to the vicinity of USD 75 amid increased volatility caused by the conflict in Gaza. The fall in oil prices was primarily driven by higher-than-expected supply, mainly from Brazilian and US producers. In parallel, demand expectations have also declined, mainly as a result of the slowdown in the Chinese economy. The dollar weakened against both developed and emerging market currencies over the period. The weakening may be primarily attributed to the Fed's communication following the lower-than-expected inflation data, after which investors do not expect more rate hikes. Developed market yields declined significantly with a parallel increase in major stock market indices.

Sentiment in domestic financial markets also improved in the previous quarter, partly owing to positive developments regarding the EU funding. Domestic interbank yields as well as short-term government bond yields declined significantly, in parallel with the MNB's interest rate cuts. The forint strengthened steadily against the euro throughout the period.

The 5-year credit default swap (CDS) spread declined further, while the government bond market yield curve also continued to shift downwards. The moderation in long-term yields was supported also by international trends of falling yields, while the short-term side might have been affected more by the MNB's interest rate cuts. Interbank interest rates declined at a higher rate than government bond yields, decreasing at all maturities as well. Short-term money market yields matched the cuts in the effective interest rate in all sub-markets. The forint appreciated steadily over the past quarter.

As a result of the negotiations on the EU funds, the drawdown of Cohesion Funds for the period between 2021 and 2027 may start. The agreement will improve Hungary's risk perception and net lending. In addition, incoming funds will have a favourable effect on the government debt path.

The rapid decline in domestic inflation has continued in recent months, and the annual rate of price increases returned to single-digit territory in October. The combination of disciplined monetary policy, pro-competitive government measures, subdued domestic demand and a significantly lower external cost environment than last year support further moderation in price dynamics. By the end of 2023, inflation in Hungary is expected to decrease to around 6.0 percent, a level corresponding to the regional average. However, a further decline is needed in consumer price index in 2024 to achieve price stability.

Inflation has been falling steadily since it peaked in January. Disinflation, which is fast both by international and historical standards, has become increasingly broad-based: in addition to the deceleration in food and tradables inflation, consumer price index of the services sector also declined. Looking ahead, the continued moderation in annual price dynamics is supported both by external and internal factors. Gas prices and freight costs, although volatile, 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 declining global food commodity prices and government measures that are generating increasingly strong competition. From October, the decline in global oil prices and the weakening of the dollar support the disinflation process in Hungary again through lower fuel prices.

The disinflationary effects of tight monetary conditions have become increasingly widespread in the course of 2023. Reflecting lower fuel prices, external inflation and incoming data, the inflation path expected for the coming year shifted downward compared to the September forecast. Inflation fell from above 25 percent at the beginning of the year at one of the fastest paces in Europe. By the end of 2023, the level of domestic inflation is expected to decrease to around 6.0 percent, a level corresponding to the regional average. The robust disinflation will continue in 2024 Q1 and subsequently it decelerates; accordingly, it will be in 2025 that the consumer price index may return to the central bank's inflation target persistently. Annual average inflation may range between 17.6–17.7 percent in 2023, 4.0–5.5 percent in 2024, and 2.5-3.5 percent in both 2025 and 2026.

The performance of the Hungarian economy is expected to be in the range of (–0.6)–(–0.4) percent in 2023. Thereafter, economic output is expected to increase by 2.5–3.5 percent in 2024, 3.5–4.5 percent in 2025 and 3.0–4.0 percent in 2026. The decline in economic performance in this year as a whole mainly reflects high inflation. However, this year's economic performance is expected to be improved significantly by the correction in agricultural growth after last year's drought. In 2024, the expansion of the economy may continue as domestic demand picks up.

The fundamentals of the Hungarian economy continued to improve. The recession ended in 2023 Q3, with economic output growing by 0.9 percent compared to the previous quarter. On an annual basis, however, domestic GDP decreased by 0.4 percent. Household consumption moderated, overall, due to high inflation and rising caution, while investment dynamics were restrained by a deceleration in public development projects and a fall in domestic demand, alongside an increase in investment in sectors producing for exports. At the same time, agriculture achieved a significantly higher output this year after last year's drought, partly offsetting the decline in other sectors of the economy. Hungarian exports expanded somewhat this year, while imports moderated due to the decline in domestic demand; as a result, net exports made a positive contribution to growth in 2023. With high employment levels, the labour market remains tight, and the unemployment rate remains low even by EU standards.

The gradual economic recovery has continued in 2023 Q4 as well. As inflation moderates, real wages rise substantially and confidence gradually recovers, leading to an increase in domestic demand – in particular, in household consumption expenditures – more balanced and stronger economic growth is expected even by EU standards in 2024. Growth in the economies of Hungary's main external trading partners is expected to remain subdued in 2024, however the major capacity-expanding foreign direct investment projects – currently in progress or newly announced – will offset that impact. Subdued European economic activity restrains the recovery in domestic exports, but with the pick-up in the output of new industrial capacities, Hungary's export market share is expected to increase further over the whole forecast horizon.

Developments in lending were consistent with regional and European trends. Corporate and household credit continued to expand, albeit at a slower pace than before. Demand is expected to recover in both markets from 2024.

The annual growth rate of corporate loans in the total financial intermediary system moderated by 4.9 percentage points relative to the previous quarter and stood at 6.0 percent in September. At 7.3 percent, the annual growth of lending to micro, small and medium-sized enterprises, which better captures underlying trends, was more robust. In the third quarter, 27 percent of all new disbursements of corporate loans (excluding current account loans) were subsidised. This is lower than the 46 percent share recorded in the first half of the year, which included the intensive contracting period of the Baross Gábor Reindustrialisation Loan Programme. According to responses to the Lending Survey, corporate credit conditions did not change significantly in the third quarter, while a smaller proportion of banks, but around a fifth of banks continued to indicate tightening in commercial real estate loans compared with previous quarters. In terms of credit demand, nearly 40 percent of banks reported a decline in demand in the third quarter, mainly for investment loans. Overall, the uncertainties surrounding the growth outlook may decelerate the annual growth rate of corporate lending to 3-4 percent by the beginning of 2024 before the rate of growth stabilises at around 8–9 percent from the beginning of 2025.

The annual growth rate of household lending slowed by 0.3 percentage points quarter-on-quarter, and reached 2.5 percent in 2023 Q3. The volume of newly signed personal loans was 12 percent higher year-on-year, while the contraction in housing loans amounted to 42 percent, partly due to the high base of the Green Home Programme. HPS Plus (to be launched in January), and the raised credit amount of the Village HPS and baby support loans may support credit growth from the beginning of 2024. Based on responses to the Lending Survey, banks reported rising demand both for housing loans and consumer loans in the third quarter. Looking ahead, banks expect demand to continue to grow in both segments. The annual growth rate of household lending may reach 2–3 percent at the end of 2023 and it is expected to stand at around 9–10 percent from the end of 2024.

The current account annual balance is expected to turn into a modest surplus in 2023 and to rise further in the years to follow.

Following the substantial deficit of the previous year, owing to the improving trade balance, the current account annual balance is expected to turn into a modest surplus in 2023. The sustained improvement in the external position reflects shrinking imports caused by significantly lower energy prices and the adjustment of energy consumption on the one hand, and by the decline in domestic demand on the other. Declining inventories supported goods exports, while the balance of services was also favourable. In the coming years, the utilisation of new export capacities and the improving global economic environment are expected to give a new boost to exports. The current account-to-GDP ratio is expected to improve by more than 8 percentage points this year, a stronger improvement than in the aftermath of the financial crisis. The current account balance improves further over the forecast horizon.

The fiscal deficit is expected to be between 5.2 and 6.0 percent of GDP in 2023. The deficit-to-GDP ratio may range between 2.9–3.9 percent in 2024, 1.9–2.9 percent in 2025 and 1.4–2.4 percent in 2026, depending on macroeconomic developments and fiscal control. The achievement of the budgetary targets is surrounded by risks over the entire forecast horizon. The government debt ratio may fall close to 73 percent by the end of 2023, followed by further declines over the forecast horizon.

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

The Monetary Council highlighted three alternative risk scenarios around the baseline projection in the December Inflation Report. Both economic growth and inflation may be lower than in the baseline in scenarios that assume deceleration in global economic activity and a slower recovery in consumption. However, possible capital outflows from emerging markets are consistent with a higher inflation path.

SUMMARY TABLE OF THE BASELINE SCENARIO

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

	2022	2023	2024	2025	2026
	Actual	Forecast			
Inflation (annual average)					
Core inflation	15.7	18.1 - 18.2	4.4 - 6.0	3.0 - 3.5	3.0 - 3.5
Core inflation excluding indirect tax effects	15.6	18.1 - 18.2	4.4 - 6.0	3.0 - 3.5	3.0 - 3.5
Inflation	14.5	17.6 - 17.7	4.0 - 5.5	2.5 - 3.5	2.5 - 3.5
Economic growth					
Household final consumption expenditure	6.5	(-3.0) - (-2.9)	2.8 - 3.5	2.6 - 3.6	2.7 - 3.7
Final consumption of government[1]	3.2	1.6 - 1.7	0.4 - 1.6	0.8 - 1.9	0.8 - 1.9
Gross fixed capital formation	0.1	(-12.2) - (-11.8)	1.5 - 4.5	1.8 - 4.7	0.8 - 3.7
Domestic absorption	3.7	(-5.3) - (-5.1)	2.1 - 3.1	2.1 - 3.3	1.8 - 3.0
Exports	12.6	0.4 - 0.6	2.7 - 4.3	5.8 - 7.6	4.6 - 6.4
Imports	11.6	(-4.8) - (-4.6)	2.3 - 3.9	4.1 - 6.1	3.1 - 5.1
GDP	4.6	(-0.6) - (-0.4)	2.5 - 3.5	3.5 - 4.5	3.0 - 4.0
Labour productivity[2]	3.0	(-0.6) - (-0.5)	2.8 - 3.7	3.4 - 4.7	2.8 - 4.2
External balance[3]					
Current account balance	-8.2	(-0.1) - 0.7	0.4 - 1.6	1.6 - 3.0	2.5 - 4.1
Net lending	-6.1	2.1 - 2.9	2.2 - 3.4	3.4 - 4.8	4.3 - 5.9
Government balance[3]					
ESA balance	-6.2	(-6.0) - (-5.2)	(-3.9) - (-2.9)	(-2.9) - (-1.9)	(-2.4) - (-1.4)
Labour market					
Whole-economy gross average earnings[4]	17.4	13.7 - 13.9	10.6 - 11.6	7.7 - 9.0	7.4 - 8.7
Whole-economy employment	1.3	0.5	(-0.3) - 0.1	(-0.3) - 0.4	(-0.2) - 0.6
Private sector gross average earnings[4]	15.7	15.9 - 16.0	10.0 - 11.0	7.1 - 8.2	6.5 - 7.6
Private sector employment	2.1	0.9	(-0.1) - 0.3	0.0 - 0.5	0.0 - 0.5
Unemployment rate	3.6	4.0 - 4.1	3.6 - 3.9	3.2 - 3.8	2.9 - 3.9
Private sector nominal unit labour cost	9.9	17.1 - 17.4	7.2 - 8.6	4.7 - 6.4	4.1 - 5.8
Household real income[5]	5.6	(-1.3) - (-1.2)	2.8 - 3.7	2.5 - 3.7	2.3 - 3.5

[1] Includes government consumption and 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.

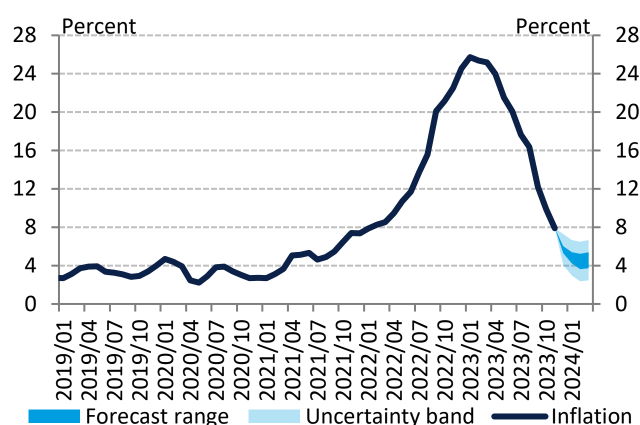
[5] MNB estimate.

1 Inflation and real economy outlook

1.1 Inflation forecast

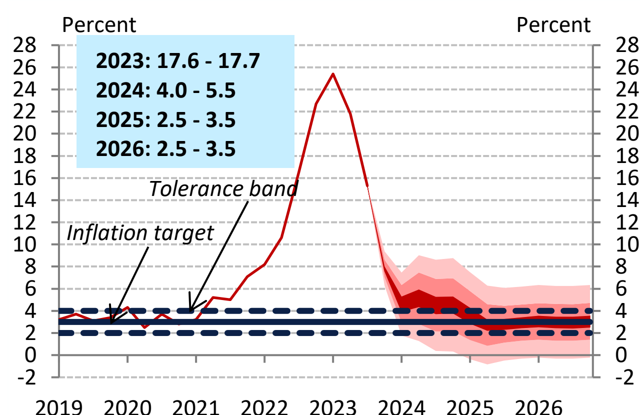
Domestic inflation has continued to fall rapidly in recent months, with the consumer price index at 7.9 percent in November. Disciplined monetary policy, government measures strengthening competition, subdued domestic demand and a significantly lower external cost environment compared to the previous year are all factors supporting the moderation in price dynamics. Rapid disinflation is projected to continue for the rest of the year and in 2024 Q1, with the rate of price increases expected to approximate the regional average from the end of this year. The decline in inflation is expected to decelerate from 2024 Q2, due to the fading of base effects and on account of regulatory and tax effects, and thus inflation should permanently return to the central bank's inflation target in 2025. Due to falling fuel prices, lower external inflation and the carry-over effect of incoming data, inflation and core inflation are likely to be slightly lower this year and next year compared to our expectations in September. Owing to the reduced uncertainties, the projection range for 2023 has narrowed to 17.6–17.7 percent. We forecast inflation to be between 4.0 percent and 5.5 percent in 2024 and between 2.5 percent and 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



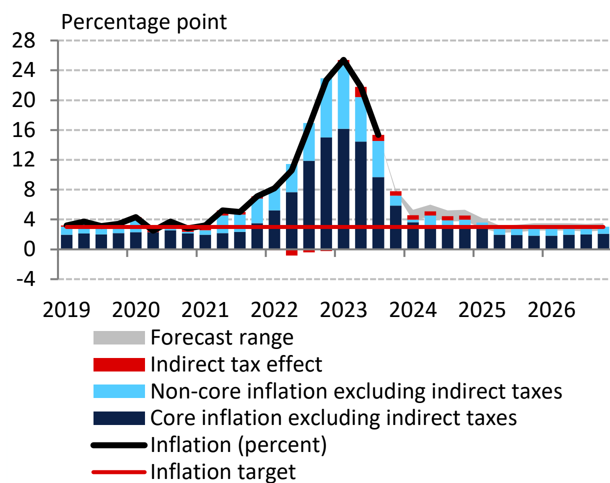
Note: Based on seasonally unadjusted data.
Source: HCSO, MNB

According to our forecast, rapid disinflation will continue for the remainder of the year and in 2024 Q1 as well, with the rate of price increases projected to approach the regional average from the end of this year (Chart 1-1). This continued decline in annual price dynamics is supported both by external and internal factors. Disciplined monetary policy, government measures strengthening competition, subdued domestic demand and a significantly lower external cost environment versus last year are all supporting the decline in inflation. Rapid disinflation will continue at the end of this year and in 2024 Q1, before slowing down as significant base effects fade and the regulatory and tax changes at the beginning of the year exert an impact on consumer prices.

The consumer price index will permanently return to the central bank's inflation target in 2025. With uncertainty declining, the band of our inflation projection for 2023 has narrowed relative to the September forecast. The consumer price index may be lower next year compared to the September projection, due to the carry-over effect of incoming data, changes in global oil prices and lower external inflation. From 2024 Q2, inflation will decline less rapidly and may even rise temporarily in certain months owing to base effects. Inflation is expected to range from 17.6 to 17.7 percent in 2023, 4.0 to 5.5 percent in 2024 and 2.5 to 3.5 percent in 2025 (Charts 1-2 and 1-3).

The forecast for core inflation, which excludes indirect taxes and thus captures underlying inflation, is 18.1-18.2 percent in 2023, 4.4–6.0 percent in 2024 and 3.0–3.5 percent in 2025. Owing to the stronger persistence of core inflation items, the core rate will decline at a slower pace than the consumer price index. The forecast for tax-adjusted core inflation is lower than

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	2026
Core inflation excluding indirect tax effects		18.1 - 18.2	4.4 - 6.0	3.0 - 3.5	3.0 - 3.5
Core inflation		18.1 - 18.2	4.4 - 6.0	3.0 - 3.5	3.0 - 3.5
Non-core inflation	Unprocessed food	19.9	5.2	5.0	4,3
	Fuel and market energy	25.8	1.9	2.6	2,5
	Regulated prices	13.1	3.9	2.5	2,2
	Alcohol and tobacco	15.4	3.5	3.5	3,4
Inflation		**17.6 - 17.7**	**4.0 - 5.5**	**2.5 - 3.5**	**2.5 - 3.5**

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

the September projection, reflecting faster-than-expected disinflation in processed foods and industrial goods.

As a result of the disinflationary effect of fuel prices, price dynamics for items outside of core inflation may be lower this year and next year compared to the September projection. Gas prices and transport costs have been volatile, but have remained at pre-war levels, despite tense geopolitical situation in general, and tensions in value chains have eased. The global market price of Brent crude has decreased by more than USD 10 since October and is now below USD 80 per barrel. In addition to the decline in global oil prices, falling margins have also had an impact on domestic fuel prices, accelerating the disinflationary process. Annual inflation in the fuel and market energy product group is expected to be around 25.8 percent this year and 1.9 percent next year (Table 1-1). Lower global food commodity prices are helping to ease food inflation. In the case of unprocessed foods, the decline in prices has been increasingly widespread since mid-year, and thus the annual price increase for this product group is projected at around 20 percent for the year as a whole and may drop into single-digit territory next year. Inflation for alcohol and tobacco products will be around 15 percent this year (mainly due to increases in excise duties on these items) and then fall substantially from 2024 as these effects wear off. Regulated energy price inflation is forecast to average around 13 percent in 2023. Our analysis is based on the technical assumption that the measures affecting retail energy prices remain unchanged over the entire forecast horizon. In 2024, a number of tax and regulatory measures (e.g. increases in excise duty on fuels, increases in road tolls, increases in special retail tax, the extended producer responsibility (EPR) fee, see Box 1-2) will boost inflation temporarily.

Box 1-1: Assumptions applied in our forecast

As Hungary is a small open economy, our forecasts for the most important macroeconomic variables are fundamentally influenced by developments in external factors. To make our forecast more transparent, the changes in external assumptions are presented below (Table 1-2).

Table 1-2: Main external assumptions of our forecast

Technical assumptions	2023		2024		2025		2026	Change		
	Previous	Current	Previous	Current	Previous	Current	Current	2023	2024	2025
EUR/USD	1.09	1.08	1.10	1.09	1.10	1.09	1.09	-0.7%	-0.7%	-0.7%
Oil (USD/barrel)	83.5	82.5	84.5	80.0	81.1	76.9	76.7	-1.2%	-5.4%	-5.2%
Oil (EUR/barrel)	76.7	76.3	77.0	73.4	73.9	70.6	70.4	-0.4%	-4.7%	-4.5%
Gas (EUR/MWh)	41.1	41.9	51.3	42.6	56.0	41.0	39.1	2.0%	-16.9%	-26.8%
Euro area inflation (%)	5.6	5.4	3.2	2.7	2.1	2.1	1.9	- 0.2 pp.	- 0.5 pp.	0.0 pp.
Euro area real GDP (%)	0.7	0.6	1.0	0.8	1.5	1.5	1.5	- 0.1 pp.	- 0.2 pp.	0.0 pp.
GDP growth of Hungary's main export partners* (%)	(-0.3) - 0.9	0.5 - 0.7	2.0 - 2.9	1.5 - 2.3	1.9 - 2.7	1.9 - 2.7	1.1-2.0	0.3 pp.	-0.6 pp.	0.0 pp.

Note: Annual average in the case of oil prices. *Growth rate of Hungary's 21 most important export partners weighted by share in exports.

Source: Bloomberg, Consensus Economics, MNB, ECB

In 2023 Q3, GDP growth continued to decelerate in most EU economies, while year-on-year economic performance stagnated in the EU as a whole. In China, output growth slowed moderately after expanding in the second quarter, whereas output growth in the US continued to accelerate. No significant growth was registered in global industrial production or global trade in the third quarter, and thus trade remained below last year's level, despite the normalisation of supply chains and the substantial year-on-year decline in world commodity prices. In the past months, global economic activity was supported by falling inflation and the still favourable labour market situation. At the same time, higher interest rates, declining industrial production, and deteriorating growth prospects in the EU, as well as tense geopolitical situation in general, pose significant risks, and the global and European growth outlook for next year has deteriorated compared to the September forecast. According to international economic indices, consumer confidence and business sentiment in the EU economies remain at low levels. Purchasing managers' indices in the services sector deteriorated this year and have not risen much in recent months, while the industrial outlook remained gloomy in the third quarter as global new orders declined. In a quarter-on-quarter comparison, GDP fell in 13 of the 27 EU countries. Output in Germany, Hungary's main trading partner, contracted by 0.4 percent on an annual basis in 2023 Q3. The US economy grew by 3.0 percent in the third quarter, while that of China expanded by 4.9 percent year-on-year.

The ECB expects lower growth and lower inflation in the euro area compared to its September forecast. The ECB projects euro area GDP growth to be 0.1 percentage point lower in 2023 and 0.2 percentage point lower in 2024 versus its previous forecast, with growth rates of 0.6 percent this year and 0.8 percent next year. Growth of 1.5 percent is expected in 2025 and in 2026. The ECB's December forecast suggests that euro area inflation may be 0.2 percentage point lower this year and 0.5 percentage point lower next year, at 5.4 percent in 2023, 2.7 percent in 2024, 2.1 percent in 2025, and 1.9 percent in 2026.

The price of Brent crude has dropped since the end of October in line with sagging global demand and is currently around USD 75. Global oil prices decreased by more than 15 percent in the span of two months, due to global oversupply. The fall in oil prices observed in recent months has been driven by high production in non-OPEC+ countries and fears of a slowdown in the Chinese economy. OPEC+ countries announced an output reduction of 2.2 million barrels per day for the beginning of 2024, but market participants are sceptical about the actual implementation of this supply cut. The price differential between Brent and Russian Ural crude has been maintained in the recent period.

Domestic petrol and diesel prices have dropped sharply in recent weeks. While Russian Ural crude oil continues to reach Hungary via pipeline, Brent is the benchmark for gasoline and diesel prices, meaning that its USD equivalent and the USD/HUF exchange rate have a significant impact on fuel prices. In line with international trends, market prices of petrol and diesel in Hungary have also been falling sharply since end-October.

The TTF gas price has been volatile in recent weeks, but remains below the levels seen before the outbreak of the Russia–Ukraine war. The evolution of domestic and European gas purchase prices follows the Dutch TTF gas price, which reached its historic peak at over EUR 300 in August 2022. Natural gas prices started to drop significantly in the latter half of December last year and continued to fall in the spring months. The decline in gas prices was furthered by a milder-than-usual winter, high storage levels and lower demand for gas. However, during the summer, the price spiked several times on news of uncertainties about LNG supplies. In early December, gas prices were around EUR 40. Changes in gas prices also affect electricity prices through gas-fired power plants. In line with the low level of gas prices, the 7-day moving average of German Phelix electricity prices has been under EUR 100 for the last six months, well below the nearly EUR 400 levels seen in December of last year.

The budget deficit may continue to decline from last year's level of 6.2 percent of GDP, and we forecast it to be between 5.2 and 6.0 percent of GDP in 2023. The deficit-to-GDP ratio may range between 2.9–3.9 percent in 2024, 1.9–2.9 percent in 2025 and 1.4–2.4 percent in 2026, depending on macroeconomic developments and fiscal control. There are risks to achieving the budget targets over the entire forecast horizon. The debt-to-GDP ratio may sink to the vicinity of 73 percent by the end of 2023, and subsequently to around 67 percent by the end of the forecast horizon.

The European Commission has accepted the fulfilment of the horizontal enabling conditions related to the judicial reform, and thus drawdown of 2021-2027 cohesion funds in the amount of EUR 10.2 billion can begin. Prior to this, after the European Commission and ECOFIN both approved the REPowerEU chapter of the Hungarian Recovery and Resilience Plan, Hungary can receive an RRF pre-financing of EUR 920 million in 2024. Access to the still unavailable recovery and cohesion funds (around EUR 21 billion) requires the full implementation of 27 super milestones set by the Commission. The advance payments and the absorption of funds affects the level of government debt, while the timing of their implementation affects the accrual balance and real economic developments.

Box 1-2: Inflationary effect of the new waste management system

Launched partially in July 2023, the new waste management system will have a significant impact on the operation of companies. The changes affect two areas. On the one hand, extended producer responsibility was introduced from July 2023, and on the other hand, from 1 January 2024, a mandatory redemption fee will affect certain products. Some of the effects are reflected in consumer prices and inflation. This Box provides an overview of the impact of the Extended Producer Responsibility (ERP) fee and the mandatory deposit charges on consumer prices.

Table 1-3: Inflationary effect of the new waste tax and regulatory measures in 2024

Measure	The measure in effect onward	Inflationary effect (2024, pp.)	Note
1. Extended producer responsibility (ERP) fee	July 2023	0.1 - 0.2	Semiannual effect in 2024
2. Mandatory redemption fee	January 2024	-	Does not affect consumer prices

Source: MNB

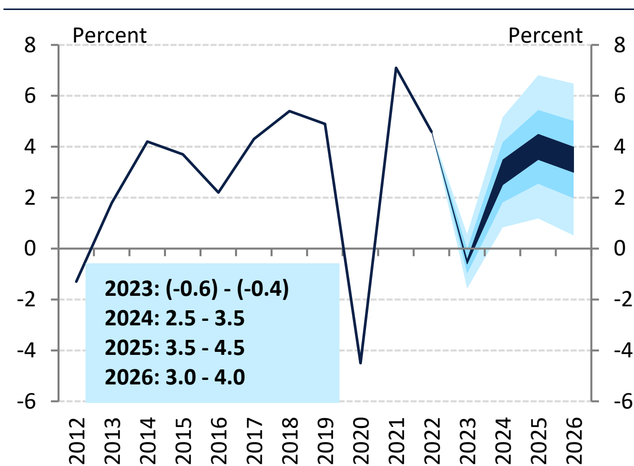
Effective from July 2023, the extended producer responsibility (EPR) fee is estimated to add 0.1–0.2 percentage points to inflation this year and the year to follow. Manufacturing companies and, in the case of foreign production, distributors, are required to pay an EPR fee to the operator of the new waste management system, for the production and distribution of certain products (e.g. packaging, plastics, electronic equipment). The new measure will affect inflation primarily through the pass-through of the higher business costs resulting from more expensive packaging materials into consumer prices. The EPR fee, which will partly replace the environmental product fee, may raise the costs of businesses by around HUF 200 billion. This may exert an inflationary effect primarily through the prices of food and daily consumer goods because the value of packaging for high-value durable goods is lower relative to the price of the product. The pass-through of the additional costs of companies entailed by the EPR fee and hence, the inflationary effect of the measure, may be dampened by increased competition among retailers in recent months and the cost environment becoming more favourable (falling food commodity and energy prices). Due to the entry into force of the fee in July 2023, it will have a partial effect on annual average inflation in 2023 and 2024. According to the available data, the price-increasing effect of the measure is 0.3-0.4 percent, which is therefore equally divided between the two years in terms of the annual average.

The mandatory deposit charges to be introduced from 1 January 2024 are not expected to have an impact on inflation. Although the deposit charges are paid by the consumer at the time of purchase, they will be shown separately from the price of the products on the receipt and the consumer will receive a refund when the packaging is returned. Therefore, this charge is not expected to be part of the consumer price taken into account when measuring inflation and therefore, it has no effect on inflation.

1.2 Real economy forecast

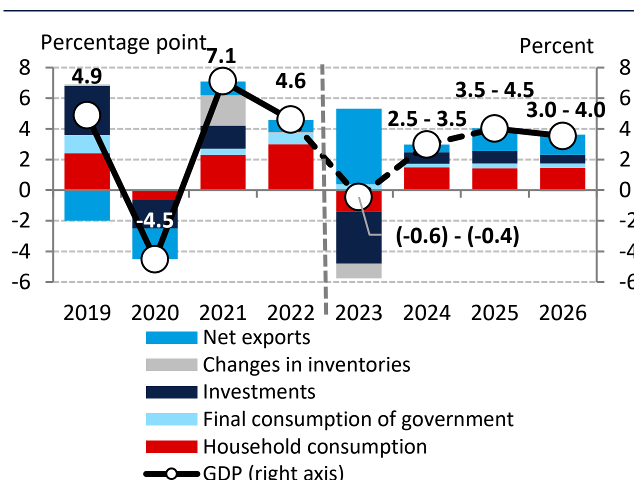
Gradual economic recovery is expected to continue in the fourth quarter, and annual GDP growth may return to the positive domain, mainly supported by a positive contribution from net exports on the expenditure side. The volume index of Hungary's GDP may be in the range of –0.6 to –0.4 percent in 2023, while the Hungarian economy is expected to grow by 2.5–3.5 percent in 2024, 3.5–4.5 percent in 2025 and 3.0–4.0 percent in 2026. The 2023 decline in annual real GDP is primarily driven by declining domestic demand due to high inflation and lower public investment, while net exports dampened the impact of these factors to a large degree. Recovering from the drought in the previous year, agriculture is the mainstay of economic activity on the production side this year, while other main sectors decrease. As domestic demand gradually bounces back starting from 2024, GDP growth is expected to rest on a broader base. In 2024, subdued external demand is expected to restrain net export growth, while the recovery in investments and the consumption rate may take longer. Exports may start to increase significantly from the second half of 2024. Recovery in domestic demand items is supported by lower inflation, gradually growing confidence and an expected rebound in retail and corporate credit markets in 2024. The expansion of investments from 2024 will be ensured by the revival of private sector investments. The nominal investment rate may be around 25 percent, while the real investment rate may be around 21 percent over the forecast horizon.

Chart 1-4: Fan chart of the GDP forecast



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

Chart 1-5: Expenditure side decomposition and forecast of GDP



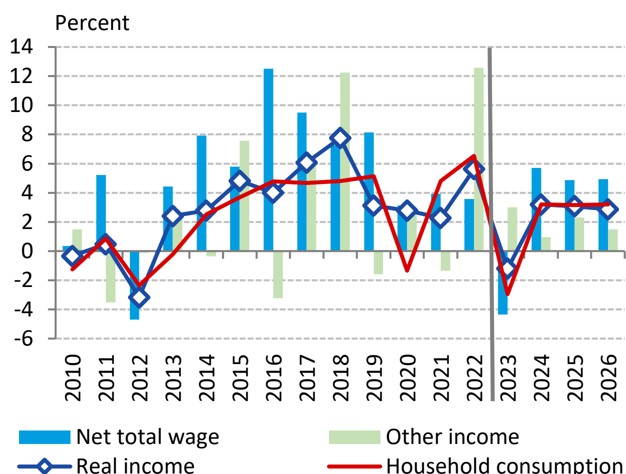
Note: Final consumption of government includes collective government consumption and the transfers from government and non-profit institutions.
Source: HCSO, MNB

The gradual recovery of the economy is expected to continue in the fourth quarter, and annual GDP growth may return to positive territory. On the output side, expansion in the fourth quarter will continue to be supported primarily by agriculture correcting after last year's drought and, thanks to the base effect, by the balance of product taxes and subsidies. Given the slower recovery in the industrial outlook and market services, the underlying processes are expected to make positive growth contributions in 2024.

For 2023 as a whole, the volume index of Hungary's GDP may be in the range of –0.6 to –0.4 percent (Chart 1-4). The decline in annual real GDP is primarily driven by high inflation and subdued domestic demand due to lower public investment, while net exports dampened the impact of these factors to a large degree. In 2023, consumption contracts on an annual basis, overall, in line with deteriorating income trends in the high inflation environment and an increased saving ratio. Due to the scaling back of government-financed projects and slack domestic demand, investment is expected to fall significantly in 2023. Following robust expansion in the previous year, Hungary's export market share will continue to grow in 2023.

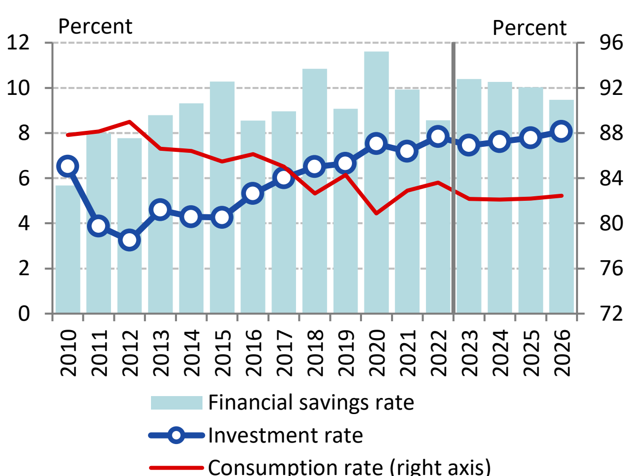
As domestic demand gradually recovers in 2024, GDP growth is expected to rest on a broader base and may range between 2.5 and 3.5 percent. With inflation falling to 4.0–5.5 percent and real wages rising since September 2023, household consumption and investment will both begin to grow again. However, international experience suggests that this recovery may take longer (Box 1-3). The recovery in domestic demand items will be supported by the gradually mounting confidence and a rebound in the retail and corporate credit markets expected for 2024,

Chart 1-6: Annual change in consumption and disposable income items in real terms



Source: HCSO, MNB

Chart 1-7: Evolution of households' consumption, investment and financial savings rates as a percentage of disposable income



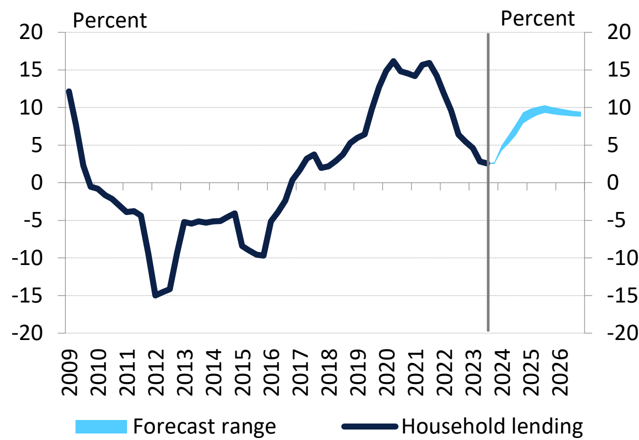
Source: HCSO, MNB

which is also buoyed by strengthening credit demand and the launch of the HPS Plus programme. Imports will also expand in line with the revival in domestic demand, while thanks to the continued expansion of production capacities, net exports will contribute positively to economic growth over the entire forecast horizon. GDP growth may continue at a rate of 3.5 to 4.5 percent in 2025 and 3.0 to 4.0 percent in 2026 (Charts 1-4 and 1-5). The upturn in economic growth expected during 2024 is reinforced by the fact that, thanks to the stability of the labour market, companies will be able to adapt rapidly to rising demand by increasing capacity utilisation. The medium- to long-term growth outlook is also boosted by the positive impact of greenfield foreign direct investment (FDI) inflows over the forecast horizon.

After the reduction experienced in 2023, consumption is expected to return to its upward trend from 2024 Q1 on an annual basis. High inflation leads to a decline in the real value of financial assets and the purchasing power of wages. At the same time, household disposable income and household consumption in real terms also fell in the first three quarters of this year (Chart 1-6). The decline in income is partly offset by an increase in the income of self-employed persons and a rise in household interest income. In 2024, continued disinflation will result in real household income growth of around 3 percent, which will contribute to a further, gradual increase in consumer confidence. We expect a turnaround in the annual volume index of consumption in 2024 Q1. However, we expect the recovery in consumption rate to take longer (Chart 1-7). The factors for the recovery of consumption are described in detail in Box 1-3.

The savings rate is expected to decline, while the investment rate of households may increase. As a result of the inflation shock, the real value of wages dropped to the level observed 2.5 years ago and the real value of net financial assets to the level seen 3 years ago (Chart 1-13). In order to restore the real value of their financial assets, households have increased their nominal savings significantly since the end of 2022; accordingly, in 2023 the savings rate is projected to rise to 10.4 percent of disposable income. The higher savings rate will lead to a decline in the consumption and investment rates in 2023. Over the forecast horizon, we expect a decline in the savings rate and an increase in the household investment rate, while the consumption rate is expected to remain around 82 percent (Chart 1-7).

Chart 1-8: Forecast for lending to households



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

Supporting the recovery in household consumption and investment, the growth rate of household credit may accelerate from the beginning of 2024. The annual rate of growth of household loans was 2.5 percent for 2023 Q3. The volume of new contracts signed in the quarter was down 21 percent in year-on-year terms. Looking ahead, the growth rate of household credit may be more favourable, as the falling inflation, gradually recovering confidence, a pick-up in the real economy and the launch of the HPS Plus programme may support household borrowing and in parallel the consumption and investment intentions of households (Chart 1-8). Household credit growth is expected to bottom out at 2–3 percent at the end of 2023, after which the growth rate is projected to accelerate, stabilising at a level of approximately 9–10 percent from the beginning of 2025.

The HPS Plus programme may account for around thirty percent of new housing loans in 2024. Based on the simulations of the MNB's agent-based housing market model,[1] nearly 11,000 HPS Plus contracts are expected to be signed annually during the period of 2024–2026, with an average credit amount of HUF 28 million (Table 1-4). The annual average volume of HPS Plus loans is estimated at HUF 270–330 billion for the period 2024–2026. We expect higher utilisation in the first two years following the launch and initially more substantial credit outflows compared to subsequent years. As regards additionality, approximately 38 percent of the HPS Plus credit volume disbursed in the first three years is estimated to be a HPS Plus-related increment in housing loans at the end of 2026.

Table 1-4: Estimated impact of the HPS Plus scheme on the lending market between 2024 and 2026

	Bottom of the estimation band	**Base scenario**	Top of the estimation band
Loan volume (HUF bn, yearly average)	270	**310**	330
Number of contracts (thousands, yearly average)	10	**11**	12
Average amount (HUF mn, yearly average)	27	**28**	28
Additionality (%, between 2024 and 2026)	37	**38**	39
Ratio of HPS Plus (%, of housing loan volume between 2024 and 2026)	25	**28**	29

Note: The estimation band captures the different degrees of commitment to have children in the HPS Plus programme.
Source: MNB

In addition to the public sector, investment in the corporate and household sectors also contributes to the more than 10-percent decline in investments this year. The expansion of investments from 2024 will be ensured by the revival of private sector investments (Table 1-5). Investments are expected to decline by 12 percent on an annual basis in 2023. Investments in the public, corporate and household sectors are all expected to decline this year. Between 2024 and 2026 investments are expected to expand again dominated by private investment growth. In line with the Convergence Programme, public sector investment as a percentage of GDP will continue to decline in the coming years. The nominal investment rate may be around 25 percent and the real investment rate, calculated at 2015 prices, around 21 percent over the forecast horizon.

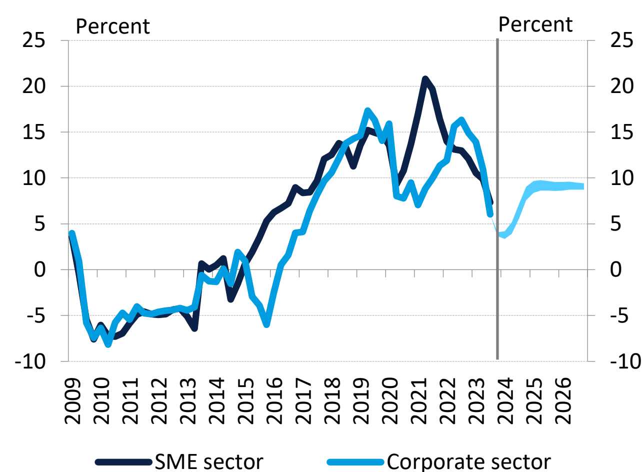
Table 1-5: Evolution of gross fixed capital formation and the investment rate

	2023	**2024**	**2025**	**2026**
Gross fixed capital formation	-12.0	3.0	3.3	2.3
Government investment	-14.0	-7.7	0.0	-3.8
Private investment	-11.5	5.5	4.0	3.5
Investment rate	25.1	25.1	25.1	25.1

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

The volume of corporate investments will decrease in 2023, due to increased costs and the fall in domestic demand. Growth from 2024 will be facilitated by the

Chart 1-9: 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

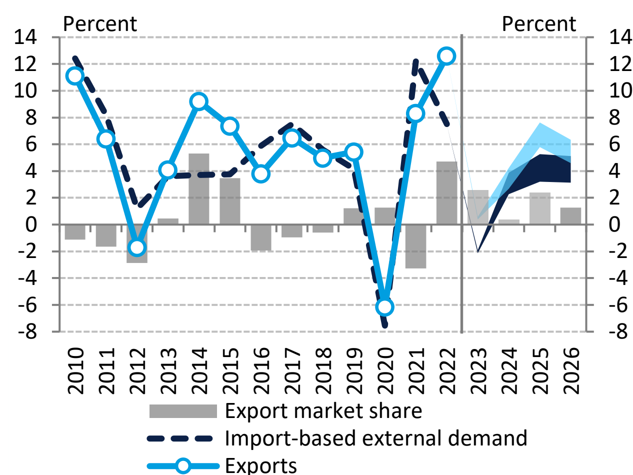
revival of domestic demand, high level of liquid assets of corporations and also by larger greenfield investment projects. In the third quarter, gross fixed capital formation in the sectors producing for the external market grew by 1.3 percent on an annual basis. In manufacturing, which has the highest weight among these sectors, investments rose by 6.3 percent. At the same time, sectors producing for the domestic market recorded an overall decline of 18.4 percent versus the same prior-year period. The investment expectations of the corporate sector have not changed significantly in recent months. Starting from 2024, however, corporate investment is expected to expand, supported by the revival of domestic demand as a result of a low inflation environment and gradually recovering confidence. Investment growth will also be driven by the implementation of the announced major greenfield investment projects in manufacturing (e.g. battery production).

Corporate credit growth may accelerate substantially from 2024. The annual growth rate of corporate loans was 6 percent for 2023 Q3. During the quarter, the lower number of contracts signed within the framework of subsidised credit programmes and falling demand for investment loans led to a deceleration in corporate credit dynamics (Chart 1-9). There was a marked contraction in the share of subsidised loans in new corporate loan contracts compared to the second quarter, which is consistent with the gradual decline observed in recourse to the Baross Gábor Reindustrialisation Loan Programme. On the demand side, banks reported a decline in demand for corporate loans in the third quarter, and demand is not expected to turn around in 2023 Q4. According to our estimates, corporate loan dynamics may fall to 3-4 percent, overall, by the end of 2024 amid fragile growth prospects, before stabilising at 8–9 percent from the beginning of 2025 until the end of the forecast horizon, after a rapid recovery in lending in 2024.

Household investment is expected to expand after a sharp decline in 2023. At HUF 51 billion, the volume of housing loans in October reflects a 14-percent year-on-year contraction, which points to a downturn in household investment in 2023. The recovery in household investment

[1] The estimates are based on the MNB's agent-based model of the housing market, which is presented in more detail in the following paper: Bence Mérő, András Borsos, Zsuzsanna Hosszú, Zsolt Oláh, Nikolett Vágó (2023): A high-resolution, data-driven agent-based model of the housing market, Journal of Economic Dynamics and Control, Volume 155, https://doi.org/10.1016/j.jedc.2023.104738. The model was run monthly between January 2018 and December 2026 under different scenarios of propensity to have children in order to estimate the potential effects of HPS Plus on the credit market. The estimation range captures different levels of propensity to have children under the HPS Plus programme. In the modelling, we took into consideration the modifications to the prenatal baby loan programme and to the Home Purchase Subsidy Scheme for Families announced by the Government effective from 1 January 2024.

Chart 1-10: Changes in export market share



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

is supported by the gradually restoring confidence, the relegation of precautionary motives to the background, and thereby the reduction in the savings rate, the expected dynamic development of the household credit market in 2024 and the HPS Plus programme that is being launched.

In line with slack economic activity in Western Europe, Hungarian exports may grow modestly in 2023. Exports may see more significant expansion starting from 2024 H2. In 2023, industrial production and new industrial orders from abroad point to a further decline in exports, and exports are not expected to embark on an upward path until 2024 H2. Essentially, the deceleration in Hungarian exports is a cyclical phenomenon, mainly driven by unfavourable developments in the European economic activity and hence, a decline in external demand, whereas the capacity of Hungarian exports has not been damaged. Accordingly, exports are expected to contribute to growth significantly again over the medium term. In the long run, the upswing in Hungarian exports will be supported by greenfield FDI investment in manufacturing. Once the relevant projects have been completed, battery factories will support the long-term expansion of exports, as a significant part of their output is for export.

Owing to the downturn in domestic demand items, imports are expected to fall significantly in 2023. The decline in imports is expected to continue in the fourth quarter, but imports are forecast to resume growth in the coming year, in parallel with the upturn in external and domestic economic activity in 2024 H2.

In 2024, subdued external demand is expected to restrain net export growth that may support substantially economic expansion from 2025. In 2023, net exports dampen the decline in Hungarian GDP with exports decelerating and imports falling significantly. The significant growth in Hungary's export market share in 2022 slows down in 2023 and 2024 before picking up again strongly from 2025 (Chart 1-10).

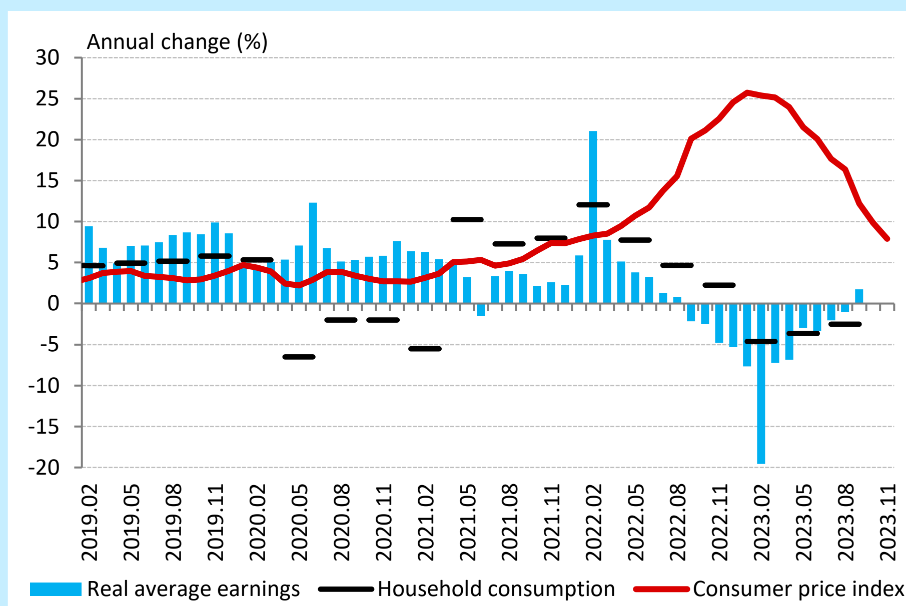
Box 1-3: How will the recovery in consumption follow the increase in real wages?

Continued disinflation is a prerequisite for the resumption of growth of domestic consumption. High inflation has also led to a significant increase in international price levels, which may delay the recovery in consumption. Real wages are rising again in line with the return of inflation to single-digit territory, but price stability, the recovery of savings and consumer confidence, and, in the long run, wage growth in line with productivity, are essential for sustained growth in household consumption.

International experience also suggests that, despite strong disinflation, the recovery in consumption may be a slow process. The Baltic States reached their inflation peak 4–5 months ahead of Hungary, with all three countries above 20 percent. The rate of disinflation is also similar to that of Hungary. Inflation fell by 20.9 percentage points in Estonia and by 18.4 percentage points in Latvia and Lithuania in the year following the peak. As inflation declined, real wage dynamics gradually improved and turned positive in Latvia for 2023 Q2, in the rest of the Baltic States and in Hungary for part of 2023 Q3. However, a consumption recovery has not yet started in any of the above countries. In 2023 Q3, household consumption expenditure fell by 1.8 percent in Estonia, 1.1 percent in Latvia and 2.3 percent in Lithuania on an annual basis.

The high price level induced by the inflation spike overshadows the resumption of domestic consumption growth. Following a significant rise, Hungarian inflation peaked at 25.7 percent in January of this year. The sharp rise in prices eroded the purchasing power of household income, in line with which household consumption expenditure growth slowed from mid-2022 and then declined by 4.1 percent in 2023 H1 in year-on-year terms (Chart 1-11). Inflation eased from its peak in January to single digits in October, but price levels remain stuck at a high level, 36.3 percent higher on average than in June 2021.

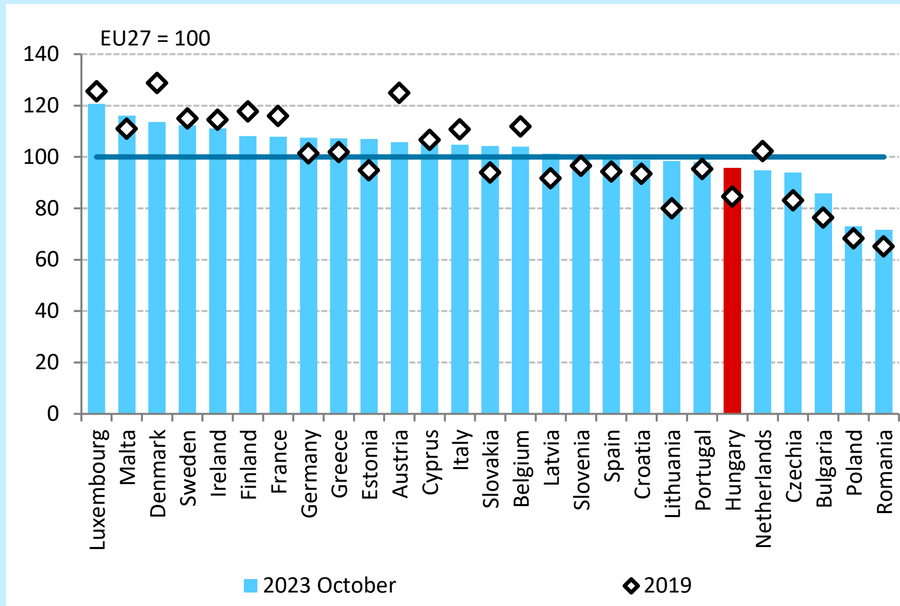
Chart 1-11: Trends in household consumption, real average earnings and the consumer price index



Note: Household consumption expenditure and gross real average earnings based on real data.
Source: HCSO, MNB

Hungarian households are already paying prices in line with the European average for many basic consumer goods due to higher inflation over the past two years. Similarly, at 96 percent now compared to 85 percent in 2019, food and fuel prices are essentially consistent with the EU average. In the Czech Republic, Poland and Romania, food and fuel prices are also lower than in Hungary (Chart 1-12).

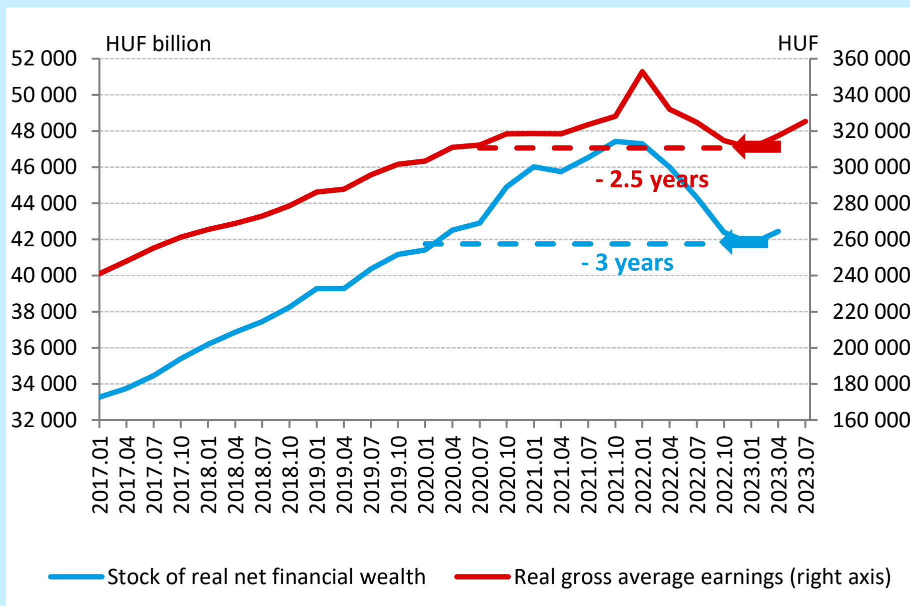
Chart 1-12: Food price level trends in the European Union countries



Note: In case of 2023 October price levels, purchasing power parity data for 2022 indexed to HICP data.
Source: Eurostat, MNB

As a result of the inflation shock, the real value of wages dropped to the level observed 2.5 years ago and the real value of net financial assets to the level seen 3 years ago (Chart 1-13). In 2023 H1, consumer prices rose by 23.6 percent on average, leading to an 8.1 percent annual decline in real wages and a 3.6 percent fall in real disposable income.

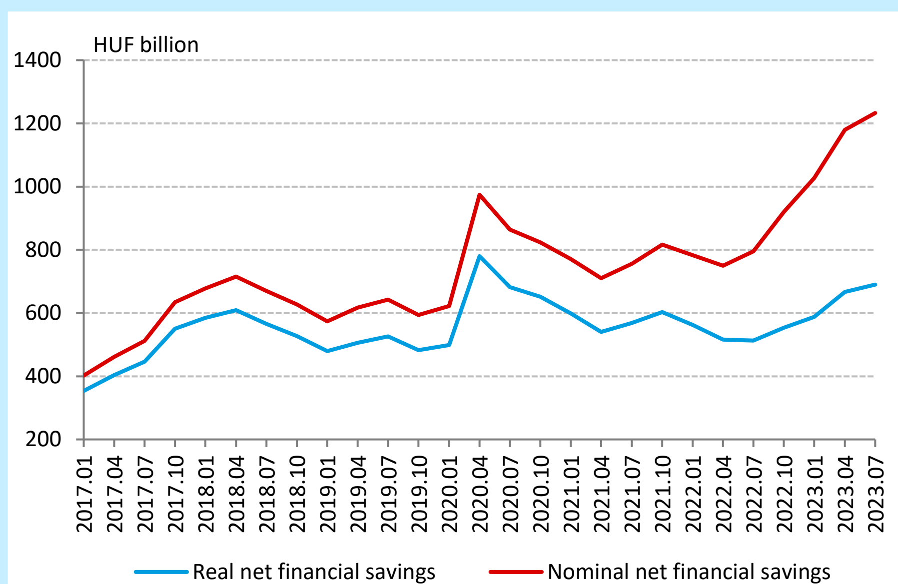
Chart 1-13: Household sector financial wealth and average wages in the national economy in real terms



Note: At the average price level of 2010, quarterly values.
Source: HCSO, MNB

Consumer confidence remains low, which is reflected in rising savings and decelerating household lending. In order to restore the real value of their financial assets, households have significantly increased their current savings since the end of 2022, which also curbed consumption (Chart 1-14). In addition, the slowdown in household credit growth is a common phenomenon across Europe with the uncertain economic outlook restraining lending.

Chart 1-14: Changes in the net financial savings of households



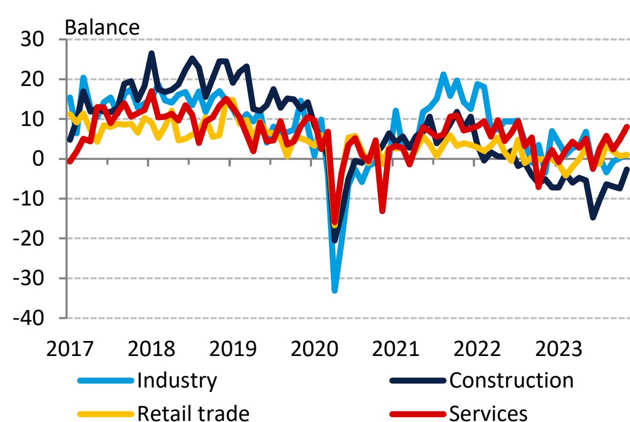
Note: Seasonally adjusted data. Without the VAT refund booked for 2021 in the financial accounts. The impact of the VAT rebate was adjusted based on the MNB's questionnaire survey. In February 2022, net savings amount to HUF 972 billion, including VAT refunds.
Source: HCSO, MNB

The ESI's consumer confidence index remains near the levels seen in 2020, the year hit by the coronavirus pandemic, with a reading of –29.8 points in November 2023. The correction in the consumer confidence index started in parallel with the peak in inflation, but despite rapid disinflation, the index has fluctuated between –35 and –30 points in recent months. The trend in the confidence index suggests that consumer confidence is improving only gradually, which may restrain the recovery in consumption looking ahead.

1.3 Labour market forecast

Labour demand remains robust, although it has fallen somewhat in recent quarters, and therefore employment growth in 2024 is forecast to be slower than previously expected. Nevertheless, the economy boasts nearly full employment status. According to our current forecast, the number of persons employed in the private sector is expected to rise by 0.9 percent in 2023 and vary between –0.1 and 0.3 percent in 2024. The unemployment rate may range between 4.0 and 4.1 percent in 2023 and between 3.6 and 3.9 percent in 2024. Wage dynamics in 2024 will be determined primarily by the minimum wage increase at the end of 2023, the tightness of the labour market and inflation developments. In the private sector, average wages are expected to increase by 15.9–16.0 percent in 2023 and by 10.0–11.0 percent in 2024. Real wages are rising again, starting from the end of 2023.

Chart 1-15: Employment expectations in the ESI business survey

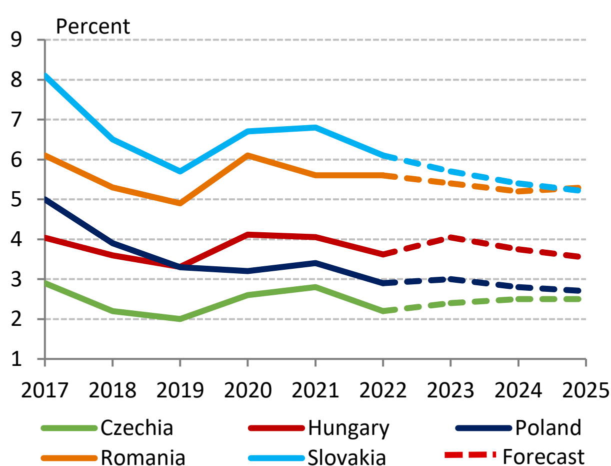


Note: The balance is positive (negative), if the majority of companies plans to hire (lay off). Seasonally adjusted data.
Source: European Commission

Although it has moderated somewhat, labour demand remains robust. The tightness of the labour market has eased in recent quarters and is currently at the same level as at the beginning of 2017. Labour demand has fallen somewhat in recent quarters with decreasing job vacancies in the private sector, in particular, in manufacturing, trade and transport. According to the latest ESI survey, employment prospects in manufacturing and trade have not changed. In other market services, the percentage of companies expecting a higher number of employees in the next three months increased. In the construction sector, companies are still planning to reduce their workforce, but this rate has decreased in recent months (Chart 1-15).

The number of unemployed persons is expected to decrease from next year. The seasonally adjusted unemployment rate was 4.0 percent in 2023 Q3, showing no significant change from the previous quarter. The unemployment rate in Hungary remains low by international standards (Chart 1-16); indeed, the value recorded in October was the sixth lowest rate in the EU. In parallel with the rise in the number of persons employed, the number of unemployed persons has also increased in recent quarters; consequently, a growing number of economically active persons are entering the labour market. According to our current projections, the unemployment rate will range between 4.0 and 4.1 percent this year, and between 3.6 and 3.9 percent in 2024. 2025 may start with an unemployment rate of 3.2–3.8 percent, and the rate may stand at 2.9–3.9 percent in 2026.

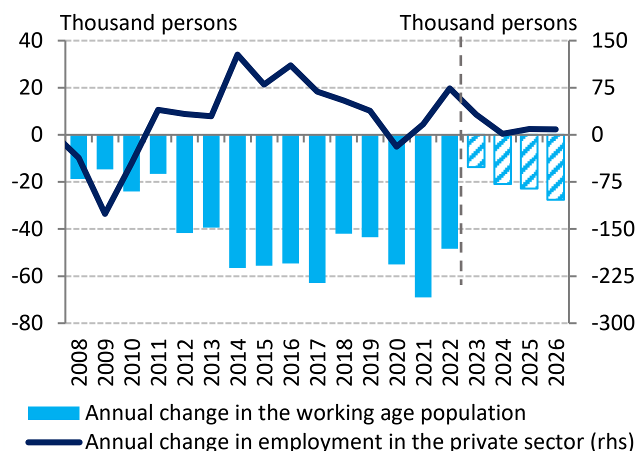
Chart 1-16: Change in the unemployment rate



Note: Data on Hungary based on the midpoint of the forecast range.
Source: Eurostat, European Commission, HSCO, MNB

The number of persons employed in the national economy rose to a new historic high in 2023 Q3. Following the peak, we do not expect any significant change in employment for the rest of the year. Employment in the private sector is expected to rise by 0.9 percent in 2023. Reflecting mildly decreasing labour demand, employment may grow at a moderate pace in 2024. Demographic trends are also a constraint to additional, significant employment growth (Chart 1-17). According to our current forecast, the number

Chart 1-17: Annual change in the working age population and the number of persons employed in the private sector

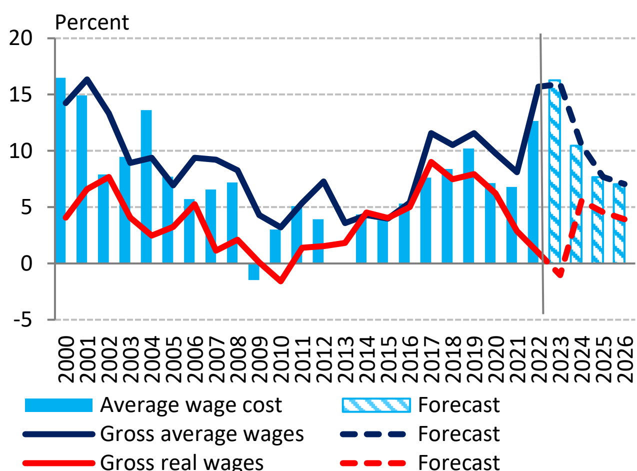


Note: The number of persons employed refers to those aged 15-74, but the projection for the working age population refers to those aged 15-64. The number of employed persons is based on the midpoint of the forecast range.
Source: Eurostat, HCSO, MNB

of persons employed in the private sector is expected to rise by 0.9 percent in 2023 and vary between –0.1 and 0.3 percent in 2024. In 2025 and 2026, the change in employment is expected to be 0.0–0.5 percent.

Real wage growth is positive again, starting from the end of 2023. From December 2023, there will be a 15 percent increase in the minimum wage and a 10 percent increase in the guaranteed minimum wage. Bringing forward the minimum wage hike by one month slightly raises private sector wage dynamics in 2023. As a result of the increase in administrative wages and the continued tightness of the labour market, wage dynamics are expected to remain robust in the coming year. However, the continued moderation in inflation and the gradual easing of labour market tensions will result in more subdued wage dynamics than in 2023. Wage dynamics in the private sector are expected to reach 15.9–16.0 percent in 2023, while wages may rise by 10.0–11.0 percent in 2024. Our projections for 2025 and 2026 are 7.1–8.2 percent and 6.5–7.6 percent, respectively (Chart 1-18).

Chart 1-18: 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

Table 1-6: Changes in projections compared to the previous Inflation Report

	2022	2023		2024		2025		2026
	Actual	Forecast						
		Previous	Current	Previous	Current	Previous	Current	Current
Inflation (annual average)								
Core inflation	15.7	18.1 - 18.6	18.1 - 18.2	4.4 - 6.8	4.4 - 6.0	3.0 - 3.5	3.0 - 3.5	3.0 - 3.5
Core inflation excluding indirect tax effects	15.6	18.1 - 18.6	18.1 - 18.2	4.4 - 6.8	4.4 - 6.0	3.0 - 3.5	3.0 - 3.5	3.0 - 3.5
Inflation	14.5	17.6 - 18.1	17.6 - 17.7	4.0 - 6.0	4.0 - 5.5	2.5 - 3.5	2.5 - 3.5	2.5 - 3.5
Economic growth								
Household final consumption expenditure	6.5	(-2.0) - (-1.8)	(-3.0) - (-2.9)	2.1 - 2.9	2.8 - 3.5	2.6 - 3.6	2.6 - 3.6	2.7 - 3.7
Final consumption of government[1]	3.2	0.2 - 0.6	1.6 - 1.7	0.2 - 1.4	0.4 - 1.6	0.9 - 2.0	0.8 - 1.9	0.8 - 1.9
Gross fixed capital formation	0.1	(-8.5) - (-7.5)	(-12.2) - (-11.8)	2.1 - 5.1	1.5 - 4.5	2.6 - 5.5	1.8 - 4.7	0.8 - 3.7
Domestic absorption	3.7	(-4.0) - (-3.8)	(-5.3) - (-5.1)	1.8 - 2.8	2.1 - 3.1	2.3 - 3.5	2.1 - 3.3	1.8 - 3.0
Exports	12.6	1.6 - 2.2	0.4 - 0.6	4.8 - 6.8	2.7 - 4.3	3.7 - 5.4	5.8 - 7.6	4.6 - 6.4
Imports	11.6	(-2.6) - (-2.0)	(-4.8) - (-4.6)	3.3 - 5.5	2.3 - 3.9	2.7 - 4.7	4.1 - 6.1	3.1 - 5.1
GDP	4.6	(-0.5) - 0.5	(-0.6) - (-0.4)	3.0 - 4.0	2.5 - 3.5	3.0 - 4.0	3.5 - 4.5	3.0 - 4.0
Labour productivity[2]	3.0	(-0.3) - 0.0	(-0.6) - (-0.5)	2.7 - 3.8	2.8 - 3.7	2.4 - 3.8	3.4 - 4.7	2.8 - 4.2
External balance[3]								
Current account balance	-8.2	(-1.1) - (-0.1)	(-0.1) - 0.7	0.4 - 1.6	0.4 - 1.6	1.1 - 2.5	1.6 - 3.0	2.5 - 4.1
Net lending	-6.1	1.1 - 2.1	2.1 - 2.9	2.1 - 3.3	2.2 - 3.4	2.7 - 4.1	3.4 - 4.8	4.3 - 5.9
Government balance[3]								
ESA balance	-6.2	-5.2	(-6.0) - (-5.2)	-2.9	(-3.9) - (-2.9)	-1.9	(-2.9) - (-1.9)	(-2.4) - (-1.4)
Labour market								
Whole-economy gross average earnings[4]	17.4	13.4 - 13.7	13.7 - 13.9	10.0 - 11.2	10.6 - 11.6	7.4 - 8.7	7.7 - 9.0	7.4 - 8.7
Whole-economy employment	1.3	0.5 - 0.6	0.5	(-0.1) - 0.5	(-0.3) - 0.1	(-0.1) - 0.6	(-0.3) - 0.4	(-0.2) - 0.6
Private sector gross average earnings[4]	15.7	15.6 - 15.9	15.9 - 16.0	9.5 - 10.5	10.0 - 11.0	6.9 - 8.1	7.1 - 8.2	6.5 - 7.6
Private sector employment	2.1	0.8 - 1.0	0.9	0.2 - 0.7	(-0.1) - 0.3	0.0 - 0.6	0.0 - 0.5	0.0 - 0.5
Unemployment rate	3.6	3.9 - 4.0	4.0 - 4.1	3.5 - 3.8	3.6 - 3.9	3.1 - 3.8	3.2 - 3.8	2.9 - 3.9
Private sector nominal unit labour cost	9.9	15.2 - 15.7	17.1 - 17.4	5.1 - 6.6	7.2 - 8.6	4.1 - 5.9	4.7 - 6.4	4.1 - 5.8
Household real income[5]	5.6	(-1.0) - (-0.8)	(-1.3) - (-1.2)	2.1 - 3.1	2.8 - 3.7	2.5 - 3.7	2.5 - 3.7	2.3 - 3.5

[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 1-7: MNB baseline forecast compared to other forecasts

	2023	2024	2025	2026
Consumer Price Index (annual average growth rate, %)				
MNB (December 2023)	17.6 - 17.7	4.0 - 5.5	2.5 - 3.5	2.5 - 3.5
Consensus Economics (November 2023)[1]	17.0 - 17.6 - 18.1	2.9 - 4.7 - 6.5		
European Commission (November 2023)[2]	17.2	5.2	4.1	
IMF (October 2023)	17.7	6.6	4.3	3.8
OECD (November 2023)	17.5	4.6	3.3	
Reuters survey (December 2023)[1]	17.3 - 17.7 - 18.0	4.1 - 5.1 - 6.5	3.4 - 4.0 - 5.5	
GDP (annual growth rate, %)				
MNB (December 2023)	(-0.6) - (-0.4)	2.5 - 3.5	3.5 - 4.5	3.0 - 4.0
Consensus Economics (December 2023)[1]	(-1.1) - (-0.6) - (-0.1)	2.0 - 2.8 - 4.4		
European Commission (November 2023)[2]	-0.7	2.4	3.6	
IMF (October 2023)	-0.3	3.1	3.3	3.4
OECD (November 2023)	-0.6	2.4	2.7	
Reuters survey (December 2023)[1]	(-1.2) - (-0.6) - (-0.5)	2.1 - 2.7 - 3.2	3.0 - 3.3 - 4.0	
Current account balance[3]				
MNB (December 2023)	(-0.1) - 0.7	0.4 - 1.6	1.6 - 3.0	2.5 - 4.1
European Commission (November 2023)[2]	0.9	0.1	-0.4	
IMF (October 2023)	-0.9	-1.6	-0.8	-0.3
OECD (November 2023)	0.1	0.8	0.5	
Budget balance (ESA 2010 method)[3]				
MNB (December 2023)	(-6.0) - (-5.2)	(-3.9) - (-2.9)	(-2.9) - (-1.9)	(-2.4) - (-1.4)
Consensus Economics (December 2023)[1]	(-6.4) - (-5.3) - (-3.9)	(-4.4) - (-3.7) - (-2.9)		
European Commission (November 2023)[2]	-5.8	-4.3	-3.8	
IMF (October 2023)	-5.5	-3.8	-2.8	-2.1
OECD (November 2023)	-5.2	-4.1	-3.4	
Reuters survey (December 2023)[1]	(-6.0) - (-5.6) - (-5.2)	(-4.4) - (-4.1) - (-3.8)	(-3.4) - (-3.2) - (-2.9)	
MNB (December 2023)	0.5 - 0.7	1.5 - 2.3	1.9 - 2.7	1.1 - 2.0
ECB (December 2023)	0.6	0.8	1.5	1.5
Consensus Economics (December 2023)[1]	0.7	1.2		
European Commission (November 2023)[2]	0.4	1.1	1.5	1.6
IMF (October 2023)[2]	0.7	1.5	2.2	2.2
OECD (November 2023)[2]	0.5	1.1	1.6	

[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.

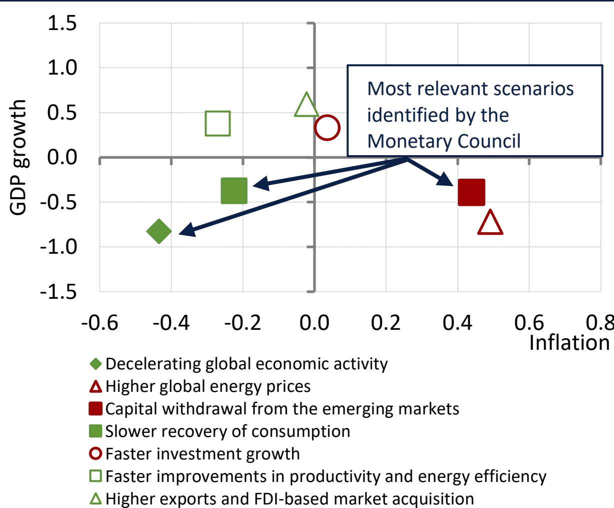
[3] As a percentage of GDP.

Source: Consensus Economics, ECB, European Commission, IMF, OECD, Reuters poll, MNB

2 Effects of alternative scenarios on our forecast

The Monetary Council highlighted three alternative scenarios around the baseline projection in the December Inflation Report. Both economic growth and inflation may be lower compared to the baseline in the scenarios that assume deceleration in global economic activity and a slower recovery in consumption. However, possible capital outflows from emerging markets are consistent with a higher inflation path. In addition to the highlighted scenarios, the Monetary Council discussed other alternative scenarios, including ones that assume higher global energy prices, faster investment growth, swifter improvements in productivity and energy efficiency, and higher exports and FDI-based market acquisition.

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 most EU economies has been slowing since early 2022, while US economic performance picked up this year. This duality is confirmed by the production indicators. Economic growth was 3.0 percent in the United States and 4.9 percent in China in annual terms in the third quarter. The euro area and the EU-27 both stagnated on an annual basis. Incoming economic data for the euro area have surprised market participants on the downside since May. Monthly production indicators fell in the euro area, while they rose in the US and China. The purchasing managers' index improved in the US, China and the euro area in November. The index has remained below the threshold level in the euro area and above it in the United States and China. Economic output in Hungary's main trading partner, Germany, has contracted by 0.4 percent in year-on-year terms. German industry continued to decline in the third quarter, with manufacturing orders falling since the start of the year.

Growth expectations for 2023 are mixed. Bloomberg analysts expect the global economy to grow by 2.8 percent in 2023, versus a projection of 2.7 percent in September. Analysts foresee the European Union's growth rate at only 0.5 percent, instead of the 0.7 percent previously assumed. Growth expectations by analyst firms for the US rose to 2.3 percent, while growth in China is still expected to amount to 5.2 percent.

The global economic outlook remains characterised by dual trends, with forecasts for growth in European economies in 2024 deteriorating markedly in the second half of this year. According to the IMF's World Economic Outlook in October, global growth may slow to 3.0 percent in 2023 and to 2.9 percent in 2024. Growth in the US and the major emerging economies may be higher than previously expected, while the growth outlook for China and the euro area has been revised downwards. For 2023

as a whole, output growth in developed countries is expected to decelerate to 1.5 percent and to 1.4 percent in 2024. At the same time, emerging countries may achieve GDP growth of 4 percent both this year and next.

In the **risk scenario**, global growth is more moderate relative to the baseline. The slowdown in the global economy, especially in China, continues to weigh on the growth prospects of the German export sector. The slowdown in the economic performance of the European economies and falling German growth hamper domestic export performance via a decline in external demand, thus contributing to a slowdown in GDP growth. In addition, a lower inflation path is envisaged compared to the baseline scenario.

Slower recovery of consumption

A rapid turnaround in real wages takes place in 2023 H2 as inflation declines. In September, real earnings already rose versus a year earlier, advancing by 1.7 percent year-on-year, according to data from the Hungarian Central Statistical Office (HCSO).

Despite the growth in real wages and the robustness of labour market developments, rising price levels have significantly eroded household incomes and wealth. Real wages have fallen back to levels seen 2.5 years earlier and real wealth to 3 years earlier. In order to restore the real value of their financial assets, households have significantly increased their savings.

Moreover, improvement in the household confidence indicator has slowed in the autumn months, which is holding back the recovery in domestic consumption. In November 2023, the GKI consumer confidence index fell to –36.7 points from –35.6 points in October, and remains near the levels seen in 2020, the time of the coronavirus pandemic. The adjustment of the consumer confidence index started in parallel with the peaking of inflation, but despite rapid disinflation, the index has fluctuated between –35 and –40 points in recent months. **The trend in the confidence index suggests that consumer confidence is only improving at a slow pace, which may restrain the recovery in consumption looking ahead.**

International experience also suggests that, despite strong disinflation, the recovery in consumption may be a protracted process. The Baltic States reached their inflation peak 4–5 months ahead of Hungary, with all three countries above 20 percent. The pace of disinflation is also similar to that of Hungary. Inflation fell by 20.9 percentage points in Estonia and by 18.4 percentage points in Latvia and Lithuania in the year following the peak. However, recovery

in consumption has not yet started in any of the above countries. In 2023 Q3, year-on-year household consumption expenditure fell by 2.6 percent in Estonia, 1.8 percent in Lithuania and 1.2 percent in Latvia.

The alternative scenario assumes that, despite strong disinflation, the savings rate remains persistently high leading to a slower recovery in domestic consumption. Subdued consumption is consistent with a lower growth and inflation path compared to the baseline, which warrants looser monetary conditions.

Capital withdrawal from the emerging markets

Looking at recent months, risk appetite has been volatile but has overall improved. During the period reviewed, investor sentiment was shaped by expectations concerning the monetary policies of the world's leading central banks, macroeconomic data releases and the events in Gaza. Stock market indices in the developed markets rose. Bond yields climbed to historically high levels in developed economies, followed by a correction in November. The US dollar weakened against the euro. Among the risk indicators, the VIX index, a key measure of equity market volatility, and the EMBI Global bond market premium both dropped to levels close to those seen in early September.

The monetary policy stance of the world's leading central banks remains tight, but at the same time, both the Federal Reserve and the European Central Bank may have reached the peak of their interest rate paths. The **Fed did not change monetary conditions** at any of its rate-setting meetings in last quarter and, based on current pricing, market participants are not expecting further rate hikes. The first rate cut of 25 basis points may take place in March 2024. **The ECB raised its policy rates by 25 basis points in September** and then **left rates unchanged in October and in December**. Looking ahead, no further rate hikes are expected in the coming period. Based on market pricing, the first rate cut of 25 basis points by the ECB may occur in April 2024.

While a turnaround in inflation has taken place in both the US and the euro area, core inflation indicators suggest a longer period of disinflation, which implies the postponement of interest rate cuts by both central banks.

The alternative path assumes a prolonged global disinflationary process. As a result, the monetary policy of the world's leading 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, external balance), 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, which warrants tighter monetary conditions.

Further risks

In addition to the highlighted scenarios, the Monetary Council considered four other alternative paths.

The **alternative path assuming higher global energy prices** assumes global supply problems and increasing geopolitical tensions, which will lead to a less favourable external equilibrium position for Hungary in comparison to the baseline scenario. The realisation of risks pointing in the direction of commodity market turmoil and persistently higher prices put an upward pressure on global inflation. In this alternative scenario, the external inflation environment will thus be higher than expected, causing a ripple effect in domestic prices. As the Hungarian economy is a commodity importer, both external and internal balance developments will develop unfavourably, which also raises the risk premium. If this scenario materialises, tighter monetary conditions may be warranted compared to the baseline.

In the alternative path featuring faster investment growth, we expect strong disinflation and an improvement in the risk environment to lead to an acceleration in lending. EU funds are also absorbed more quickly than in the baseline scenario. Overall, these factors lead to a faster recovery in investment, resulting in a higher growth path.

In the risk scenario with a faster improvement in productivity and energy efficiency, the shift to an intensive growth model will further stimulate growth in the domestic economy, mainly on the supply side, through improved competitiveness. Competitiveness may be improved at a degree higher than assumed in 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 Catching-up', accelerating a green transition. Completion 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.

In the alternative path with higher exports and FDI-based market acquisition, domestic exports grow faster than in the baseline for two reasons. On the one hand, the export market share of established domestic and foreign

companies increases and, on the other, planned FDI-based greenfield investments begin production faster than expected, and these new capacities also boost Hungary's export performance. Furthermore, the improved risk perception results in more greenfield FDI investments coming to the country. The scenario is thus consistent with a higher growth path.

3 Macroeconomic overview

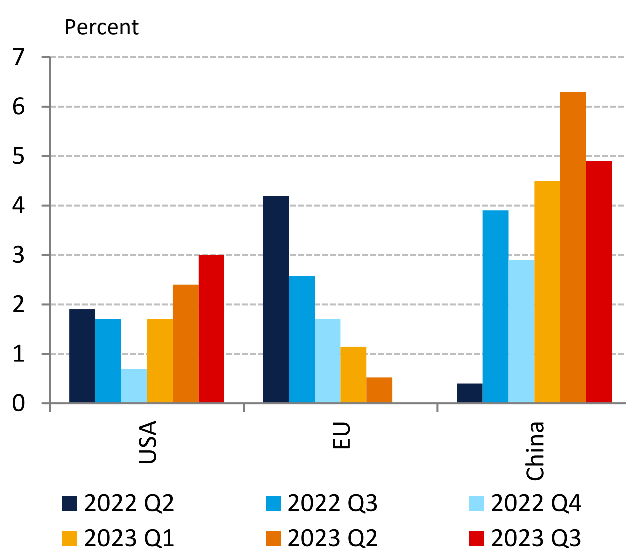
3.1 Assessment of international macroeconomic developments

Growth in the EU economies continued to slow in the third quarter, but labour markets remained tight despite falling economic activity. The US economy expanded more than expected, while China's growth was in line with forecasts, despite continued housing market turmoil, and positive developments were seen in household consumption. The ongoing war between Russia and Ukraine and the geopolitical tensions remain a major risk to the international economic outlook, and in particular the European economic outlook. In the United States, the Federal Reserve left the target range for the federal funds rate unchanged in November and December. The Fed also continued the balance sheet tightening it commenced in June 2022. The ECB kept interest rates on hold in October and in December, after indicating that policy rates had reached a sufficiently restrictive level following the September rate hike. The central bank announced that it plans to start reducing the PEPP portfolio in the second half of 2024. The ECB intends to fully stop reinvestments by the end of 2024. In the region, the Polish central bank kept its benchmark interest rate unchanged in November and in December, after cutting it by 75 basis points in September and 25 basis points in October. The Czech and Romanian central banks maintained the level of their interest rates in the last quarter.

3.1.1 International economic trends

Economic growth in the EU decelerated further in 2023 Q3 (Chart 3-1). The performance of European economies was mixed compared to preliminary expectations, with the EU and euro area economies stagnating year-on-year in 2023 Q3 both in terms of seasonally and calendar-adjusted data. GDP contracted in 13 of the 27 countries in the European Union on a quarterly basis. Output in Germany, Hungary's main trading partner, fell by 0.4 percent on an annual basis in 2023 Q3. Among the countries in the region, GDP dropped in the Czech Republic (–0.7 percent), while expanding in Poland (+0.6 percent) and Slovakia (+1.1 percent) in year-on-year terms.

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

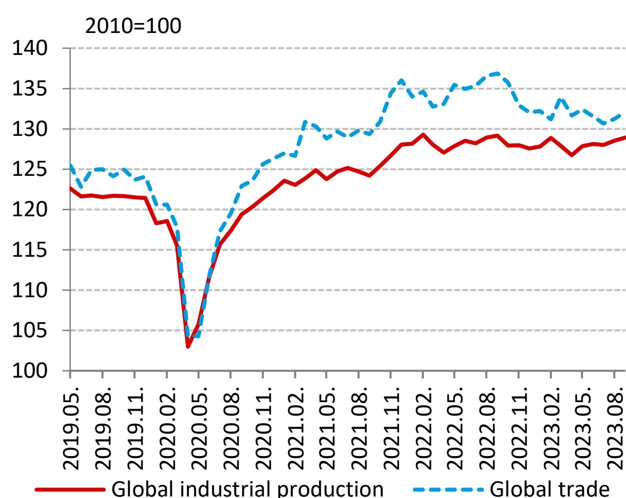


Note: In case of the EU, the calculation is based on seasonally and working day adjusted data.
Source: Trading Economics, FRED, Eurostat

In the US, output growth continued to accelerate on an annual basis, with growth exceeding the preliminary expectations. The US economy grew by 3.0 percent on an annual basis, the highest rate since the first quarter of last year, while on a quarterly basis it grew by 1.2 percent. In the third quarter, growth continued to be supported by a strong expansion in household consumption and by investment.

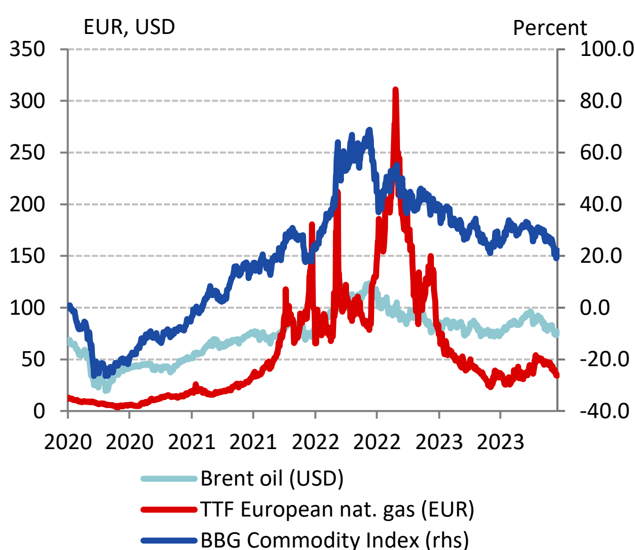
China's annual growth rate slowed in 2023 Q3. At 4.9 percent, annual growth in China was more modest than in the second quarter, while output expanded by 1.3 percent on a quarterly basis. Incoming data suggest that growth dynamics of around 5 percent are likely to be maintained in the final quarter of the year, with retail sales and industrial output showing steady increases on an annual basis. Due to the protracted property market crisis, real estate investment declined significantly year-on-year this year.

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



Note: Based on seasonally adjusted data.
Source: CPB

Chart 3-3: Commodity prices



Source: Bloomberg

The deteriorating growth prospects for European economies, as well as the ongoing war between Russia and Ukraine and the tense geopolitical situation in general, pose a significant risk to the international economic outlook. In the third quarter, global industrial production and global trade did not grow significantly (Chart 3-2). Trade thus remained below last year's level, despite the normalisation of supply chains and the substantial year-on-year decline in world commodity prices (Chart 3-3). In recent months, global economic activity has been supported by moderating inflation and a continued favourable labour market situation. At the same time, higher interest rates, declining industrial production in the EU and deteriorating growth prospects, as well as geopolitical tensions in general, pose significant risks, and the global and the next year's global and European growth outlook has deteriorated compared to the September forecast. International business confidence indices show that consumer confidence and business sentiment in EU economies remain at low levels. Purchasing managers' indices in this year in the services sector deteriorated and have failed to increase significantly in recent months, and the industrial outlook also remained gloomy in the third quarter as global new orders declined.

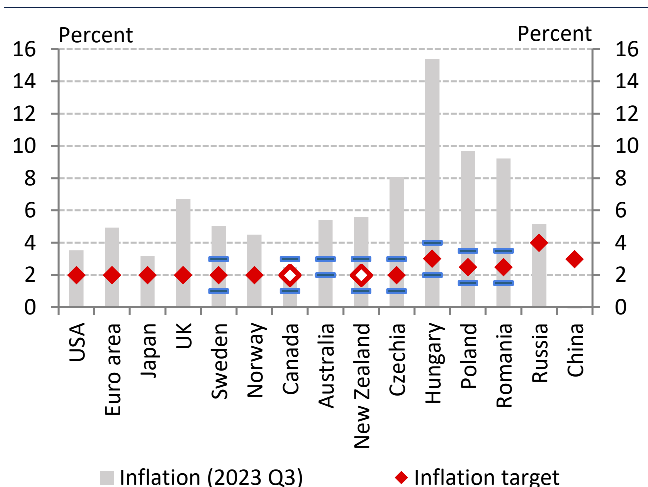
3.1.2 International monetary policy, inflation and financial market trends

While global inflation has decelerated in recent months, there has only been a moderate drop in core inflation. In most advanced economies, inflation rates remain well above the central bank targets (Chart 3-4).

In the United States, inflation continued to decline. The CPI inflation index fell from 3.7 percent in September to 3.2 percent in October and 3.1 percent in November. Core inflation eased from 4.1 percent in September to 4.0 percent in October and stayed at this level in November. PCE inflation in August and September held steady at 3.4 percent before declining to 3.0 percent in October. In terms of the structure of inflation, services are making the highest contribution at the moment.

In the United States, the Federal Reserve left the federal funds target range unchanged in November and December. Following the decision, Fed Chairman Jerome Powell said that the central bank will continue to set monetary policy in a data-dependent manner. Based on the December forecasts, policymakers have lowered their expectations for the policy rate at the end of next year from 5.1 percent to 4.6 percent, while at the end of 2025 they expect the policy rate to be 3.6 percent, instead of 3.9 percent. The liquidity-providing measures introduced in

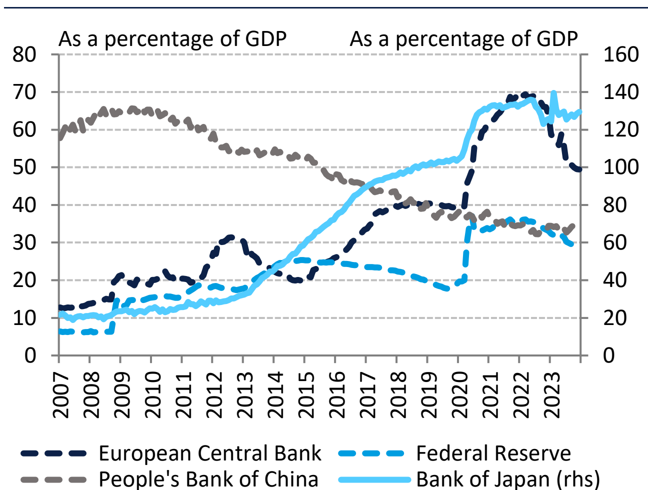
Chart 3-4: Inflation targets of central banks and actual inflation



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 an empty diamond.

Source: OECD, FRED, National Institute of Statistics Romania, Statistics Sweden, Federal State Statistics Service

Chart 3-5: Central bank balance sheet totals in developed countries



Source: Databases of central banks, Eurostat, FRED.

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 dropped again to USD 7,788 billion – i.e. 28.2 percent of GDP – at the beginning of December 2023 (Chart 3-5).

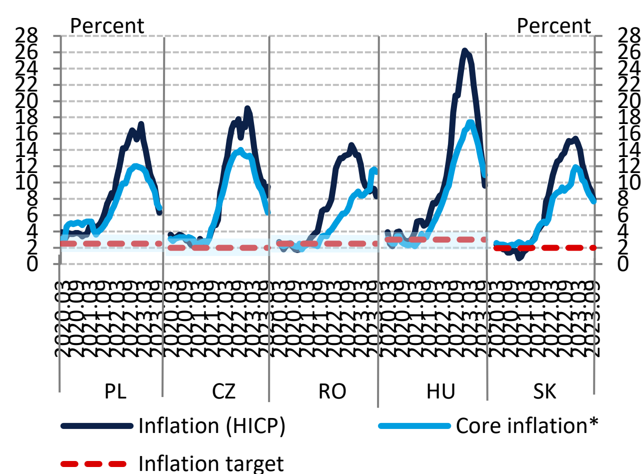
Inflation in the euro area fell from 4.3 percent in September to 2.9 percent in October and 2.4 percent in November, according to preliminary data. Core inflation fell from 4.5 percent in September to 4.2 percent in October and 3.6 percent in November based on the preliminary data. According to the central bank's December forecast, annual inflation may reach 5.4 percent in 2023, 2.7 percent in 2024, 2.1 percent in 2025 and 1.9 percent in 2026.

After its September rate hike, the ECB kept interest rates on hold in October and December and announced that it plans to start the reduction of the PEPP portfolio in the second half of 2024. Based on the current assessment, the central bank considers that rates are at levels that, if maintained for a sufficiently long duration, will make a substantial contribution to the timely return of inflation to the target. In setting the appropriate level of interest rates, it will continue to adopt a data-dependent approach. The ECB plans to reduce the PEPP portfolio by an average of EUR 7.5 billion per month in the second half of 2024. The ECB intends to fully stop the reinvestments at the end of 2024. The ECB's balance sheet total stood at EUR 6,993 billion at the beginning of December 2023, or 49.4 percent of GDP (Chart 3-5).

The Bank of Japan did not change the –0.1 percent interest rate on excess reserves in the previous quarter, but widened the tolerance band around the yield target to ±100 basis points from ±50 basis points. In addition, the tolerance band is no longer a hard limit, but is used as a reference point by the central bank, which shapes the yield curve by buying assets at the necessary maturities. The central bank will continue with its quantitative and qualitative easing (QQE) programme until inflation remains stable at the 2 percent target. Inflation fell from 3.2 percent in August to 3.0 percent in September, before rising to 3.3 percent in October. The central bank's balance sheet stood at 129.4 percent of GDP at the beginning of December 2023 (Chart 3-5).

China's central bank maintained the medium-term lending facility at 2.5 percent and the one-year and five-year reference rates at 3.45 percent and 4.20 percent, respectively. However, the central bank reduced the reserve requirement ratio for commercial banks by 25 basis points with effect from 15 September. As a result of the decision, the weighted-average reserve requirement ratio

Chart 3-6: Inflation and core inflation in the region



Note: Annual change, in 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

of Chinese commercial banks fell from 7.6 percent to 7.4 percent. The 18 largest commercial banks in China kept their one-year and five-year benchmark lending rates unchanged at 3.45 and 4.20 percent, respectively, for their top-rated customers. Inflation fell from 0 percent in September to –0.2 percent in October and then to -0.5 percent in November. At the beginning of October, the central bank's balance sheet total stood at 34.7 percent of GDP.

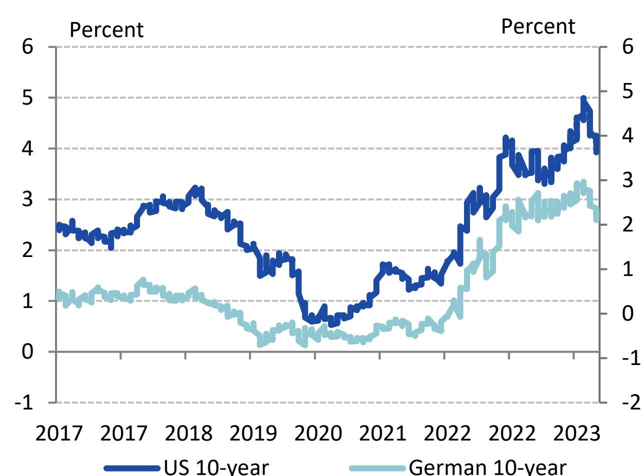
The Polish central bank kept its policy rate unchanged at 5.75 percent both at its November and at its December policy meeting, after cutting the rate by 75 basis points in September and 25 basis points in October. Looking ahead, the central bank will decide on further measures based on incoming data on inflation and economic activity. Central bank governor Adam Glapinski said that, given the risks, there was no rush to cut interest rates further. Inflation eased from 8.2 percent in September to 6.6 percent in October and remained at this level in November. The Harmonised Index of Consumer Prices was 6.3 percent in October (Chart 3-6).

The Czech central bank kept its base rate unchanged at 7.0 percent. Central bank governor Aleš Michl told at the press conference after the decision that several alternative scenarios had been discussed. They suggest that the potential macroeconomic cost of leaving interest rates at the current levels for a longer period would be low, unless upside risks to inflation materialise. Inflation rose from 6.9 percent in September to 8.5 percent in October, before declining to 7.3 percent in November. The Harmonised Index of Consumer Prices was 9.5 percent in October (Chart 3-6).

The policy rate of the Romanian central bank remained unchanged at 7.0 percent. Inflation fell from 8.8 percent in September to 8.1 percent in October and 6.7 percent in November. The Harmonised Index of Consumer Prices was 8.3 percent in October (Chart 3-6). Central bank governor Mugur Isărescu said that the central bank had no plans to cut the base rate at the moment, and decided to stick with higher interest rates ("higher for longer").

Overall, investor sentiment has improved over the past quarter. While the geopolitical conflict in the Middle East temporarily increased investor risk aversion in the first half of the period, diplomatic efforts and the temporary ceasefire were well received by markets. The avoidance of a US government shutdown and better-than-expected declines in inflation in the US and Europe also contributed to improved investor risk appetite. In the past quarter, asset prices were mainly influenced by expectations

Chart 3-7: US and German 10-year government bond yields



Source: Bloomberg

regarding the interest rate policies of major central banks and the geopolitical conflict in the Middle East. The avoidance of a US government shutdown also had a positive impact on investor sentiment. Market expectations are pricing in a longer-term continuation of tight monetary policy by the Fed and the ECB. Oil markets also saw a calming effect with the diplomatic resolution of the Middle East conflict.

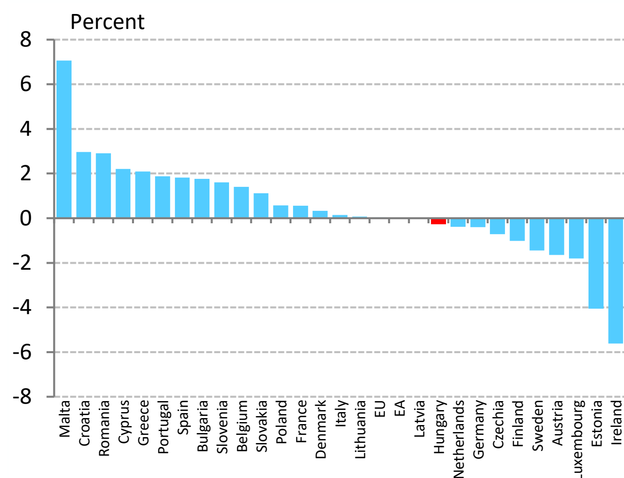
Oil prices have recently fallen to near USD 75 and European gas prices have also fallen (Chart 3-3). Developed stock indices are up 9.5 percent in the US and almost 10 percent in Europe. The index for emerging economies rose less, advancing by 3.1 percent. The US dollar weakened against developed currencies, falling 3 percent against the euro, 5.3 percent against the Swiss franc and 4.2 percent against sterling. The US currency also weakened by 1.7 percent against the Japanese yen. Developed market long bond yields also declined, down by 62 basis points in the US and 82 basis points in Germany, while the Japanese 10-year yield was 8 basis points lower (Chart 3-7). Emerging market bond yields fell similarly, with long yields in the region falling 80 basis points for Poland and Czechia, and 140 basis points for Hungary.

Developed central banks may have reached the end of the rate hike cycle, according to market pricing. At the latest meeting, as expected, the Fed did not change its policy rate target range, and market pricing suggests that rates could also remain at the current levels at the next meeting, with easing starting in March at the earliest. For the ECB, market participants also expect interest rates to remain unchanged, with the peak of the interest rate path remaining around 4 percent.

3.2 Analysis of the production and expenditure side of GDP

In 2023 Q3, economic output expanded at a quarter-on-quarter rate of 0.9 percent, bringing the recession to a close after the stagnation seen in the preceding quarter; however, output fell by 0.4 percent in year-on-year terms. On the production side, only agriculture (+3.4 percentage points) made a positive contribution to the year-on-year volume index in the third quarter, while industry (–0.9 percentage point), construction (–0.1 percentage point) and services (–1.7 percentage points) were in the negative range. On the expenditure side, declining real wages due to high inflation dragged down household consumption (–1.2 percentage points), while gross fixed capital formation (–4.9 percentage points) and changes in inventories (–0.4 percentage point) also deepened the recession. It was, however, dampened by final consumption of government (+1.3 percentage points) and net exports (+5.0 percentage points).

Chart 3-8: Annual GDP change in EU countries in 2023 Q3

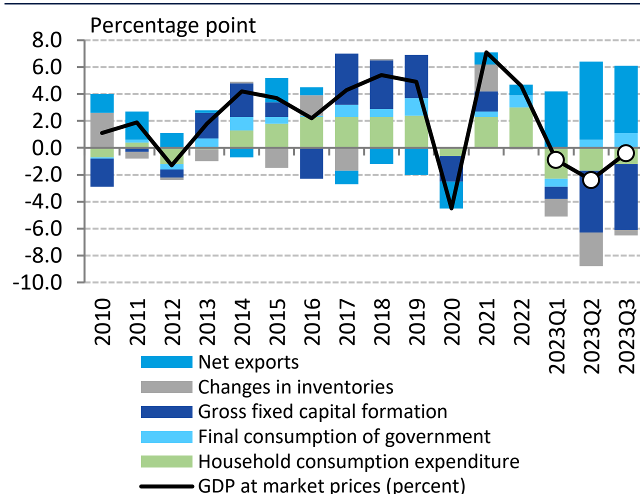


Note: Seasonally and calendar adjusted data.
Source: Eurostat

In 2023 Q3, economic output expanded at a quarter-on-quarter rate of 0.9 percent, bringing the previous recession to a close. At the same time, GDP declined further on an annual basis, falling by 0.4 percent in the third quarter based on the raw data, while GDP dropped by 0.3 percent year-on-year on the seasonally and calendar adjusted basis that is used for international comparisons. The euro area and the European Union economies both stagnated on an annual basis (Chart 3-8).

In 2023 Q3, the annual decline in domestic GDP was mitigated by the performance of agriculture on the production side, and net exports on the expenditure side. The year-on-year decline in economic output was significantly moderated on the production side by the outstanding performance of agriculture, also due to last year's low base. The added value of agriculture increased by 88.2 percent, and thus the sector curbed the decline of the economy by 3.4 percentage points. On the expenditure side, household consumption decreased (–2.7 percent) and gross fixed capital formation shrank significantly again (-15.1 percent) year-on-year in the third quarter. The change in inventories also restrained the development of GDP (by –0.4 percentage point), but to a lesser extent than in the first two quarters. Net exports softened the economic downturn by 5.0 percentage points, as the volume of imports decreased to a greater extent (–8.7 percent) than that of exports (–3.6 percent).

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

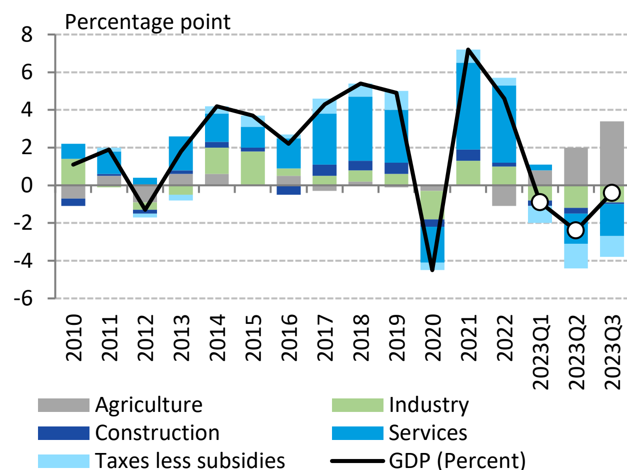


Note: Final consumption of government includes collective consumption of government, social transfers in kind from the government and NPISHs. Changes in inventories includes acquisitions less disposals of valuables.
Source: HCSO, MNB

In the third quarter, falling real wages led to a 2.7-percent year-on-year decline in household consumption expenditure. The volume of household consumption expenditure fell by 5.8 percent for non-durable goods, 0.9 percent for semi-durable goods, for 0.2 percent for durable goods and 0.4 percent for services, respectively. Collective consumption of government increased by 4.4 percent, social transfers in kind from the government increased by 6.4 percent, while social transfers in kind from the non-profit sector rose by 8.5 percent in annual terms.

Gross fixed capital formation decreased by 15.1 percent on an annual basis. Construction investment fell

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



Source: HCSO

significantly, while investment in machinery and equipment increased. The four-quarter rolling average of the investment rate at current prices fell to 26.1 percent in the third quarter. Calculated at fixed 2015 prices, the rate dropped to 22.2 percent. **The contribution of the change in inventories to growth was negative** (–0.4 percentage point).

The volume of exports (–3.6 percent) and imports decreased (–8.7 percent). Exports of goods fell by 4.9 percent, while exports of services rose by 1.8 percent compared to the same period of the previous year. **Overall, net exports cushioned the decline in GDP by 5.0 percentage points in the third quarter** (Chart 3-9).

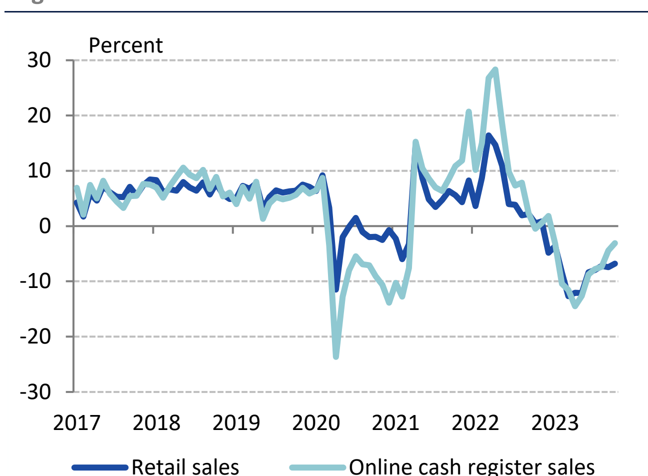
The output of industry fell by 5.4 percent, while the output of manufacturing dropped by 4.1 percent year-on-year. Of the manufacturing sectors, the largest contributors to the decline were food products, as well as the rubber, plastic and construction material industry, whereas the decline in industry was curbed mostly by the manufacturing of motor vehicles. The downturn in the energy industry also contributed significantly to the deterioration in industrial performance. **Output in construction fell by 1.6 percent** year-on-year.

Agricultural performance increased by 88.2 percent on an annual basis compared to the low base of the previous year.

The combined volume of value added in services contracted by 3.1 percent. There was a decline in the performance of trade (–11.6 percent) – a sector with a very large weight – and transport, storage and warehousing (-8.0-percent). The performance of professional, scientific and technical and administrative services decreased by 6.4 percent, financial and insurance activities by 1.3 percent, and real estate activities by 1.0 percent. Contrary, the added value of information and communication (+2.1 percent) and accommodation and food services (+0.8 percent) sectors increased. **Government-related services expanded by 1.6 percent overall.** The increase was explained by the human health and social work activities, where an increase of 8.8 percent was measured. The added value of education increased by 0.5 percent, while public administration, defence, compulsory social security decreased by 1.9 percent year-on-year (Chart 3-10).

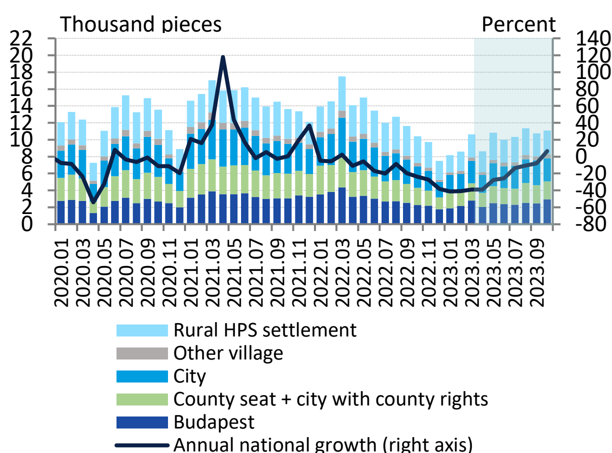
In 2023 Q3, the annual growth rate of retail sales decelerated further (Chart 3-11). In October 2023, the volume of retail sales fell by 6.8 percent year-on-year on a seasonally and calendar-adjusted basis, marking ten

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

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



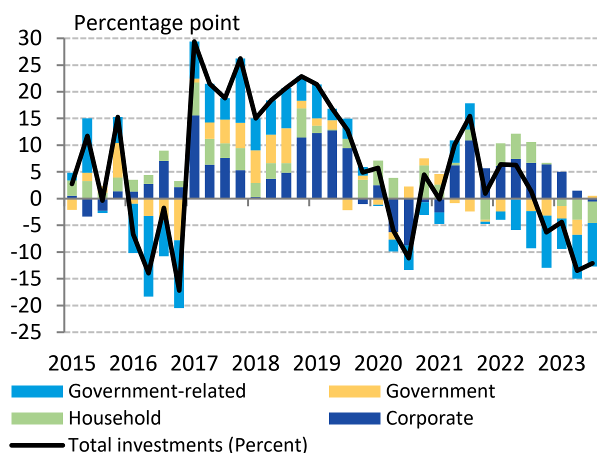
Note: Only taking into account 50-percent and 100-percent private acquisitions. From January 2022 to March 2023, the data of the NTCA fee database are adjusted based on the estimation of the level of processing by type of settlement. Based on transactions and estimated market share of real estate agents in the months shown.
Source: Housing market intermediary database, MNB, NTCA

months of year-on-year declines in retail trade. The turnover of NTCA online cash registers increased by 6.8 percent in nominal terms, while inflation-adjusted turnover fell by 3.1 percent year-on-year in October, based on seasonally and calendar-adjusted data. This figure differs from retail trade in that it includes turnover from, among other activities, hotels and restaurants, taxi services and some accommodation services.

The volume of new contracts signed in the household credit market fell year-on-year in the third quarter, but the market is expected to recover from 2024. The annual growth rate of household loans in the total financial intermediary system slowed by 0.3 percentage points quarter-on-quarter, amounting to 2.5 percent at end-September. The volume of housing loans contracted by credit institutions in 2023 Q3 was 42 percent lower than in the same period of the previous year, while the volume of personal loans issued was 12 percent higher. On a quarter-on-quarter basis, the volume of housing loans increased by 11 percent and the volume of personal loans by 8 percent. In the third quarter, young married couples concluded prenatal baby loan contracts in the amount of HUF 73 billion, down 28 percent on the same period of the previous year. Based on responses to the Lending Survey, 63 percent and 22 percent of banks, in net terms, experienced an increase in demand for housing loans and consumer loans, respectively. Looking ahead to 2023 Q4 and 2024 Q1, 94 percent and 10 percent of banks expect a recovery in housing loans and personal loans, respectively, in net terms.

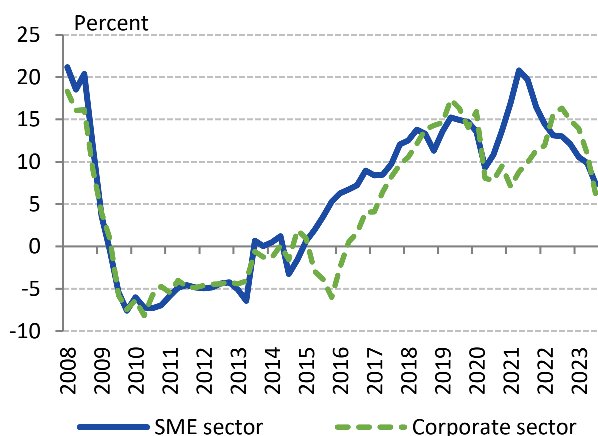
The level of housing market activity has moved out of its trough but remains low (Chart 3-12). In 2023 Q3, the number of private housing transactions reached 32,500 nationwide, reflecting an increase of 10 percent from the very low level in the second quarter, but 11 percent lower than the same period of the previous year. By October 2023, the number of housing market sales had increased moderately, rising by 7 percent year-on-year nationwide, including 30 percent more transactions in Budapest compared to October 2022, but the level of market activity is still well below levels from recent years. According to the MNB's house price index, after three quarters of continuous decline, house prices rose by 0.5 percent in 2023 Q2 nationwide, including 1.1 percent in the capital, and 2.5 percent in municipalities on a quarterly basis in nominal terms, while in rural towns and cities they fell by 1.0 percent. Based on preliminary data, house prices are likely to have increased by 0.4 percent on a quarterly basis in 2023 Q3 nationwide.

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



Source: HCSO, MNB

Chart 3-14: Annual change in lending to non-financial corporates and SMEs



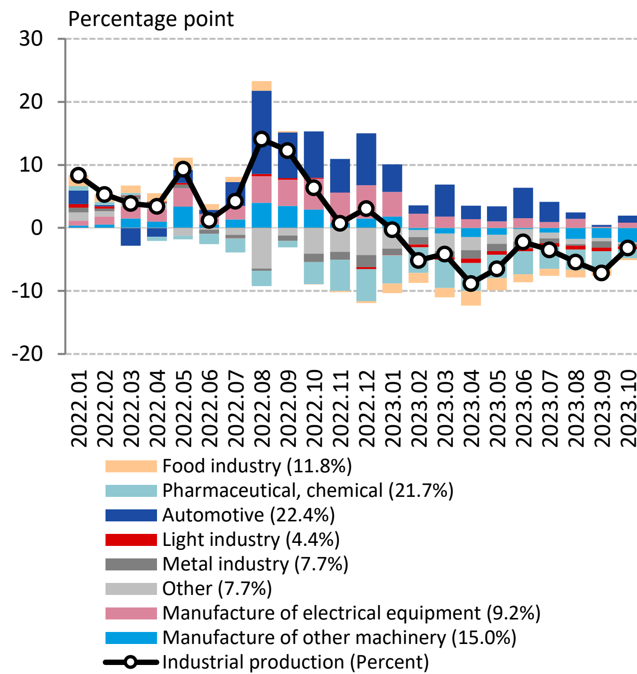
Note: Data for the corporate sector are based on transactions with the total financial intermediary system. The SME sector does not include the self-employed.
Source: MNB

Investment in the national economy contracted by 12.1 percent year-on-year in 2023 Q3, marking the second quarter in a row that investment fell by more than 10 percent. Investment in machinery and equipment grew by 6.8 percent, while investment in construction dropped sharply by 21.6 percent on an annual basis in the third quarter (Chart 3-13).

Investment in sectors that mainly produce for the external market continued to expand somewhat in the third quarter, while quasi-fiscal and residential investment contracted the most (by almost 30 percent). In the second quarter, investment in sectors producing for the external market grew by 1.3 percent on an annual basis. In manufacturing, which has the highest weight among these sectors, investments rose by 6.3 percent. At the same time, the sectors producing for the domestic market and the services sector recorded an overall decline of 18.4 percent versus the same prior-year period. In particular, investment in accommodation and food services declined at the highest rate (–41.7 percent). In 2023 Q3, investment by budgetary institutions grew by 10.0 percent on an annual basis. According to the HCSO, however, the increase is mainly due to technical reasons, as a number of entities previously classified as enterprises have been reclassified as budgetary institutions, and the reclassification worsened the investment performance of enterprises while increasing the investment performance of budgetary institutions. Investment in the narrowly defined public sector (public administration, education, health) grew by 3.8 percent after the decline recorded in the previous four quarters. The volume of investments increased in public administration (+9.3 percent) and education (+2.5 percent) and decreased in health care (–6.0 percent). Investment in sectors indirectly linked to the government (quasi-fiscal) fell by 29.2 percent. Investment in the real estate sector contracted sharply by 28.9 percent year-on-year; the last time a larger decline was recorded was in 2013 Q2 (-32.8 percent) (see Box 3.1, Chart 3-19).

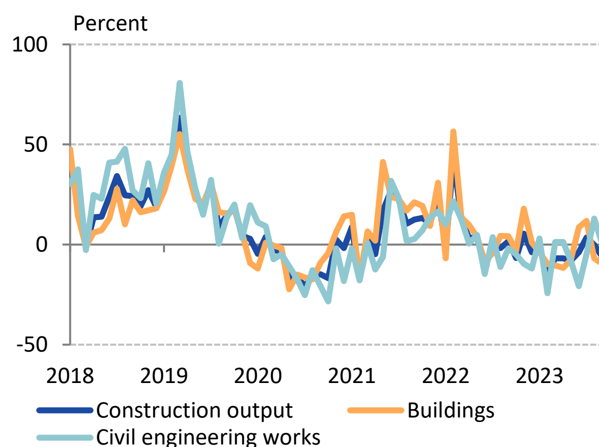
The annual growth rate of corporate loans continued to moderate in line with international trends, while the share of foreign currency loans in new loan contracts remained significant. Corporate credit grew by 6.0 percent across the entire financial intermediary system in 2023 Q3 (Chart 3-14), which translates to a deceleration of 4.9 percentage points relative to the end of the previous quarter. Within corporate lending, the annual growth rate of SME lending was 7.3 percent at the end of the third quarter. For new contracting, foreign currency loans increased by 17 percent (excluding the exchange rate effect), while forint loans decreased by 17 percent in the

Chart 3-15: 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 3-16: Evolution of construction output



Source: HCSO

first nine months of 2023. Within new disbursements, the share of subsidised loans declined due to the higher utilisation of credit programmes in the previous half-year: while in 2023 H1 it was still 46 percent, mainly due to the amounts contracted under the Baross Gábor Reindustrialisation Loan Programme (BGH), in 2023 Q3 it dropped to 27 percent. Based on responses to the Lending Survey, overall, banks did not make any significant changes to corporate credit conditions in the third quarter. During the same period, a net 39 percent of banks reported reduced demand for corporate loans, and around two thirds of them saw a decline in demand for long-term loans, reflecting a downturn in investment intentions. Looking ahead to the next six months, only a net 6 percent of banks expected a continued decline in corporate loan demand, but a net 15 percent anticipated a recovery in short-term loans (Chart 3-14).

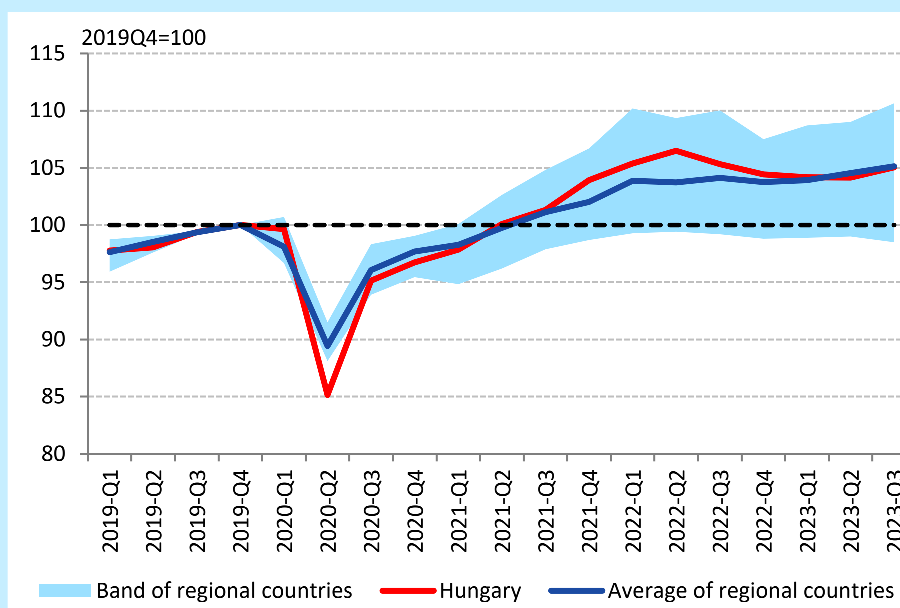
Domestic industrial production fell by 5.4 percent in the third quarter compared to the same period of the previous year. Among the industrial sub-sectors, battery and transport equipment manufacturing expanded, while the performance of pharmaceuticals and chemicals, food, light manufacturing and metals deteriorated. The external trade balance showed a significant surplus in the third quarter. The terms of trade improved by 10.4 percent year-on-year in 2023 Q3, mainly driven by the correction in the price of mineral fuels (Chart 3-15).

Construction output fell by 1.6 percent in 2023 Q3 year-on-year. Construction of buildings was down 1.4 percent, while construction of other structures decreased by 0.4 percent on an annual basis (Chart 3-16).

Box 3-1: Performance of the Hungarian economy in international comparison

Hungary's recovery from the coronavirus pandemic was successful both by European and regional standards, but the country's relative economic performance has declined since mid-2022. Thanks to effective domestic crisis management, GDP returned to its pre-pandemic level in a year and a half. In 2022 H1, the pattern of growth changed with consumption becoming more important, which temporarily lifted domestic GDP growth above the regional average, but this proved to be unsustainable. In 2022 H2, Hungarian inflation rose above the regional average, which, together with fiscal consolidation measures, significantly dampened domestic demand. As a result, from 2022 H2 Hungary entered a recession that lasted three quarters, bringing GDP back to the vicinity of the regional average relative to its pre-crisis level (Chart 3-17).

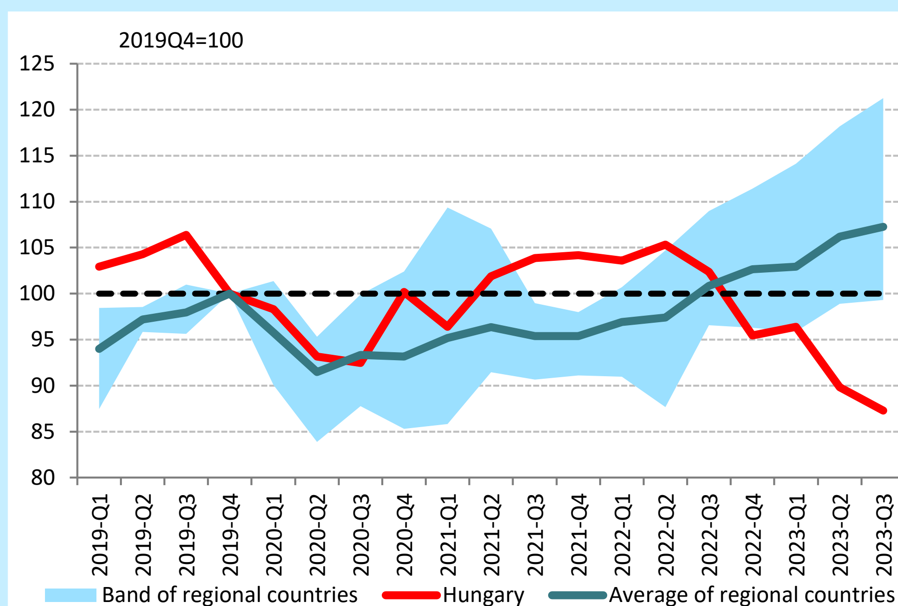
Chart 3-17: Trends in gross domestic product compared to pre-pandemic levels



Note: Region is to be understood without Hungary. Seasonally and calendar adjusted data.
Source: Eurostat, HCSO

The subdued economic performance in recent quarters has been driven mainly by a decline in investment (including public investment) and a fall in household consumption (Chart 3-9). After a slump during the coronavirus pandemic, the level of investment in Hungary returned to the pre-pandemic levels in 1–1.5 years and then remained above these, outpacing the region. After 2022 Q2, however, the trend was broken and in the span of five quarters, volumes fell from a level exceeding 105 percent of the 2019 Q4 level to around 87 percent. A substantial loss of momentum in domestic investment activity is also reflected in subdued construction activity and a significant decline in the stock of orders. This contrasts with the relatively gradual recovery observed in the region (Chart 3-18). At 12.7 percent below pre-crisis levels, gross fixed capital formation was the lowest in the European Union in 2023 Q3, with Ireland not included because of the special nature of its investment activity.

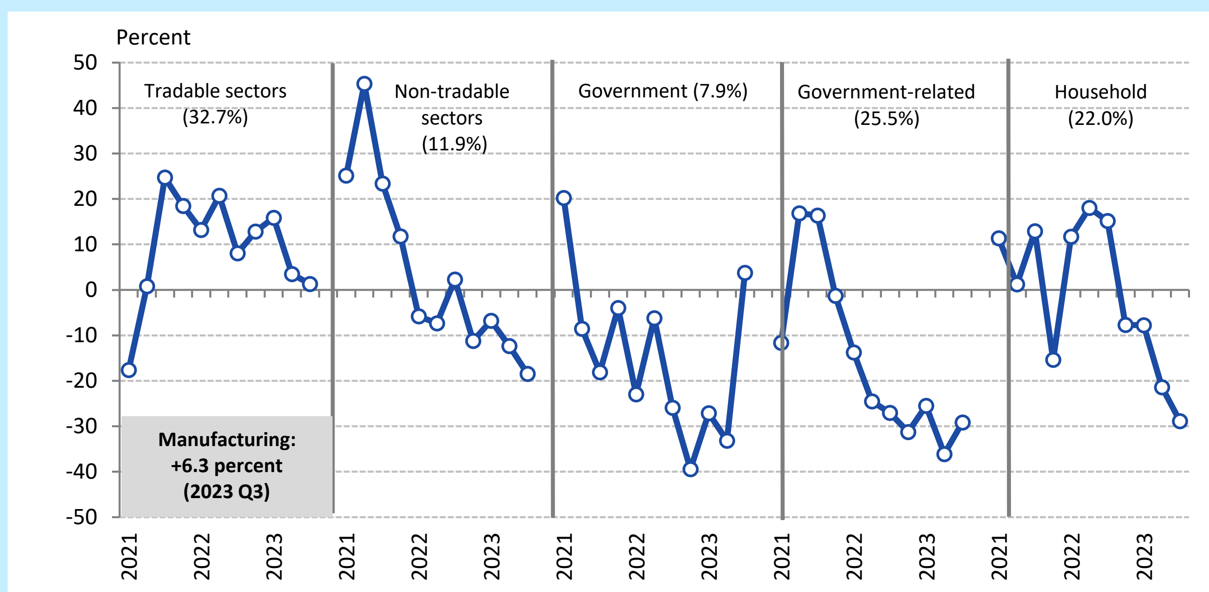
Chart 3-18: Gross fixed capital formation compared to pre-pandemic levels



Note: Region is to be understood without Hungary. Seasonally and calendar adjusted data.
Source: Eurostat, HCSO

The decline in investment is mainly due to a contraction of almost 30 percent in state-owned enterprises and residential investment, while investment in sectors mainly producing for foreign markets increased somewhat (Chart 3-19). Statistics show that in 2023 Q3, 12.1 percent less investment was completed in Hungary than in the same period in 2022. In 2023 Q3, investment by budgetary institutions grew by 10 percent on an annual basis, but this increase was mainly due to technical reasons. This is because from 1 January 2023, some tasks previously performed by state-owned companies were assumed by central budgetary institutions; thus a number of entities previously classified as enterprises were transferred to the category of budgetary institutions. The reclassification worsened the investment performance of businesses, while it boosted the investment performance of budgetary institutions. The largest decline was recorded in the investment activity of sectors indirectly linked to the government (quasi-fiscal), which fell by 29.2 percent partly for this methodological reason. High inflation, which eroded households' real incomes, and the corresponding, extremely low consumer confidence also significantly undermined retail investment (–28.9 percent). The renewal rate of the domestic housing stock is the lowest in the region and is on a downward trend. By contrast, the picture is more favourable for firms, which suggests that the structure of investment is moving in line with demand. While sectors that typically produce domestically invested 18.4 percent less, those in the export sector, which faces higher demand, invested slightly more (1.3 percent) in 2023 Q3 than a year earlier. However, development in both groups is being restrained by the sharp rise in investment prices, which is also extremely high by European standards.

Chart 3-19: Annual change in the investment performance of each sector of the national economy

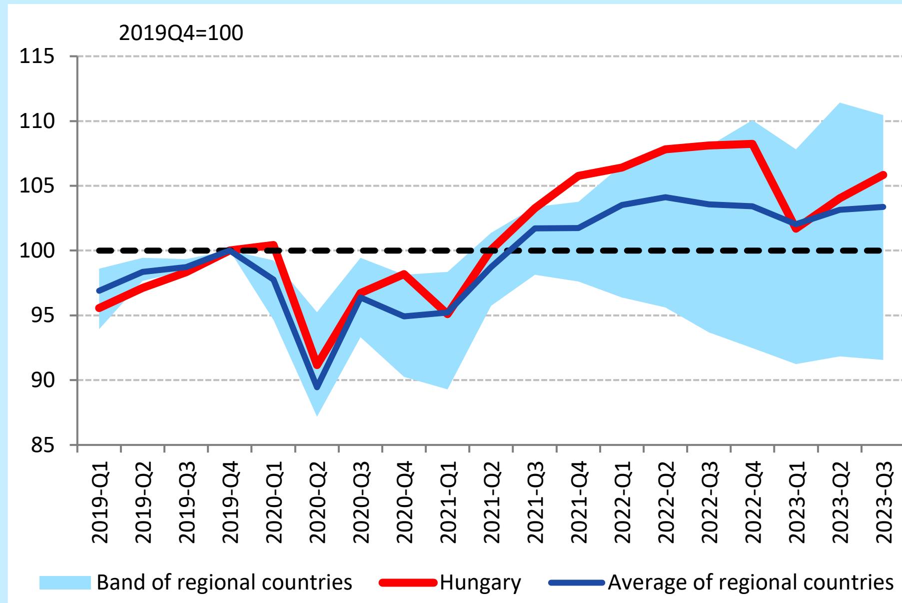


Note: 2022 shares within total investment are shown in brackets. Sectors producing for foreign markets: agriculture, mining, manufacturing; sectors producing for the domestic market: construction, commerce, food services, communication, finance; strict public sector: public administration, education, health; quasi-fiscal: energy, water supply, transport and certain minor service sectors; Households: real estate transactions.

Source: HCSO, MNB

Consumption was above average in 2022 and then dropped to the regional average in early 2023. After the pandemic, the level of domestic consumption was typically higher than the regional average until the end of 2022, with the first three quarters of 2022 being the highest in the region (Chart 3-20). This was also supported by the significant additional income from the central budget for the population in the first half of 2022. By the end of the year, however, these resources had been depleted, and, faced with high inflation, the public was spending with increased caution. Rising price levels reduced the real income and real wealth of the population significantly. Real wages and real wealth have fallen back to the levels from 2 years earlier and 3 years earlier, respectively. In order to restore the real value of their financial assets, households increased their savings substantially, resulting in a larger decline in household consumption (–6.1 percent) in 2023 Q1 than in other countries in the region. The fall in demand (both private and public) was mainly reflected in the downturn of retail sales, industries producing for domestic consumption and construction. On the production side, the performance of both industry and construction fell below the regional average, even though they had previously been consistently above that value. With the easing of inflation, families reduced their consumption expenditures to a lesser extent in the third quarter than in the first half of the year, but the level of consumption was still significantly lower than a year earlier.

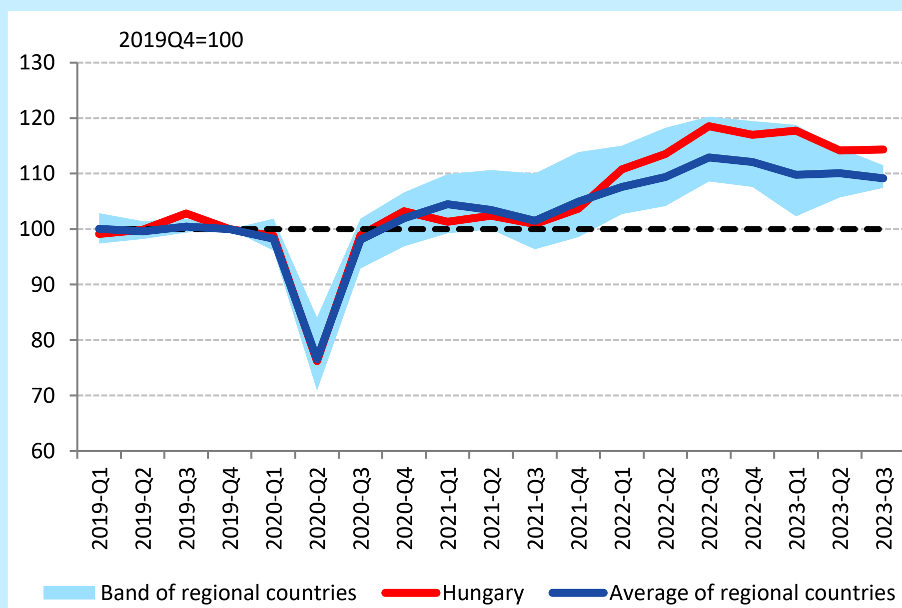
Chart 3-20: Evolution of household consumption expenditure compared to pre-pandemic levels



Note: Region is to be understood without Hungary. Seasonally and calendar adjusted data.
Source: Eurostat, HCSO

Despite the weak external environment, export performance has been above the regional average since 2022, and net exports have significantly cushioned the economic contraction thanks to imports falling in line with domestic demand (Chart 3-21). Hungary's share of the export market has increased significantly since the beginning of 2022, which may be mainly due to earlier greenfield FDI investment. Looking ahead, however, the decline in confidence and production indicators, the fall in industrial export orders and expectations for the external environment all point to a deteriorating export outlook.

Chart 3-21: Evolution of exports compared to pre-pandemic levels



Note: Region is to be understood without Hungary. Seasonally and calendar adjusted data.
Source: Eurostat, HCSO

3.3 Labour market

Employment in the national economy remains at historically high levels. Year-on-year employment growth continued in the third quarter, driven by an increase in the number of private sector employees. Unemployment rates remained low in international comparison. The number of vacancies advertised is above the pre-crisis range, which suggests that the labour market is stable and still has not been impacted substantially by the economic slowdown. In 2023 Q3, average gross earnings in the private sector increased by 15.1 percent compared to the same quarter of the previous year.

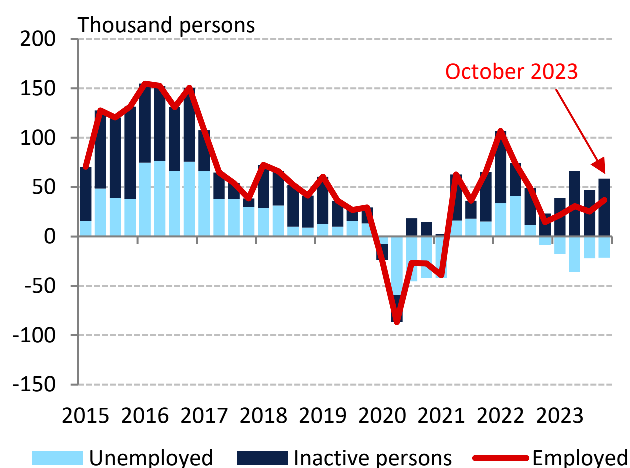
3.3.1 Employment and unemployment

Employment in the national economy remains at historically high levels. In 2023 Q3, the average number of employed persons aged 15–74 was 4,737,000, an increase of 25,000 compared to the same period of the previous year (Chart 3-22). The increase in the number of employees was partly supported by the number of persons employed at local units abroad (+18,000 on an annual basis) and partly by the primary labour market (+13,000 on an annual basis), while the number of fostered workers decreased by 6,000. In October, the number of employed persons was 4,757,000, up 37,000 on the same period of the previous year. Based on seasonally adjusted data, employment levels have been above 4.7 million for the third quarter in a row and have been slowly rising since the end of last year. The unemployment rate, calculated using the methodology of the HCSO based on a three-month moving average, averaged 4.1 percent between July and September 2023. The latest data for October show a seasonally adjusted unemployment rate of 4.2 percent. The domestic unemployment rate is still low in international comparison.

In 2023 Q3, employment growth was mainly driven by the private sector, which expanded by 25,000 year-on-year. The number of full-time equivalent (FTE) employees rose by 0.3 percent compared to the same period of the previous year. Based on detailed sectoral data available on a quarterly basis, employment increased in construction, while it remained flat in manufacturing. Employment increased in agriculture and market services (including administrative and support service activities, financial and insurance activities, as well as transportation and storage) (Chart 3-23), but fell in the energy production sectors and tourism. The number of persons employed in the public sector did not change significantly on an annual basis.

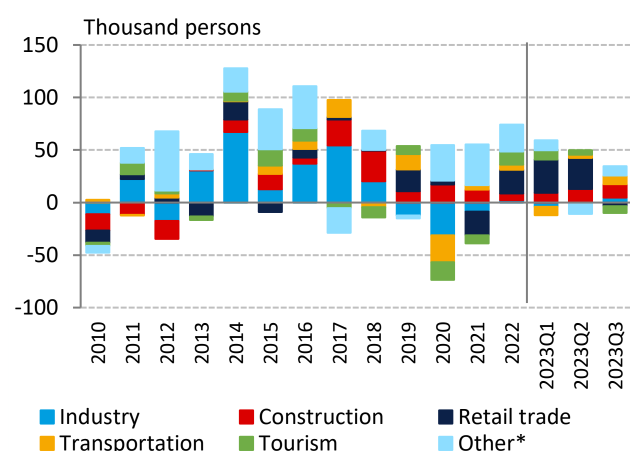
Indicators capturing short-term unemployment trends show a mixed picture (Chart 3-24). The number of registered unemployed was 226,000 in November. The seasonally adjusted data show no significant change compared to the values observed since spring 2022, and remain low by European standards. The Google Trends indicator for unemployment benefits deteriorated somewhat in the summer and has not moved significantly

Chart 3-22: Decomposition of annual changes in whole-economy employment



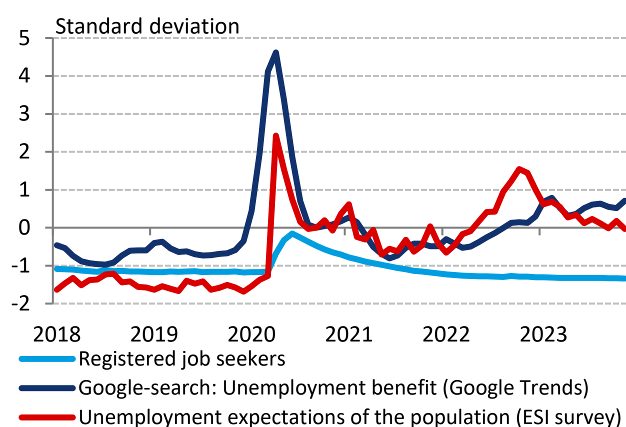
Note: Instead of 2023 Q4, monthly data for October is available. Changes in the number of unemployed and economically inactive have the opposite sign.
Source: HCSO

Chart 3-23: Decomposition of annual changes in private sector employment



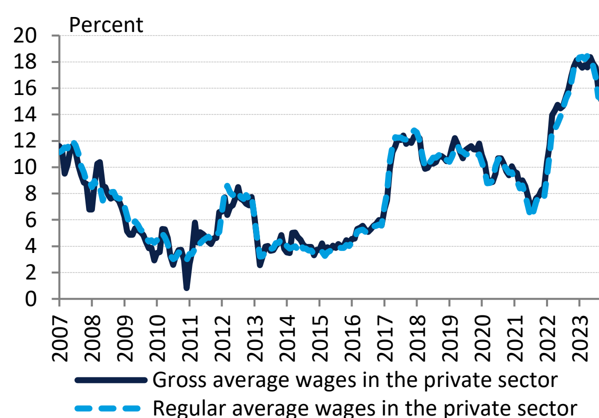
Note: *Agriculture, other industry and service sector branches.
Source: HCSO

Chart 3-24: Indicators capturing the short-term evolution of unemployment



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

Chart 3-25: Annual change in gross average wages in the private sector



Note: Quarterly moving averages. Source: HCSO

from its higher summer level in recent months. According to the ESI Consumer Survey, while consumers' fear of unemployment has eased since last autumn, it remains higher than before the pandemic.

3.3.2 Wages

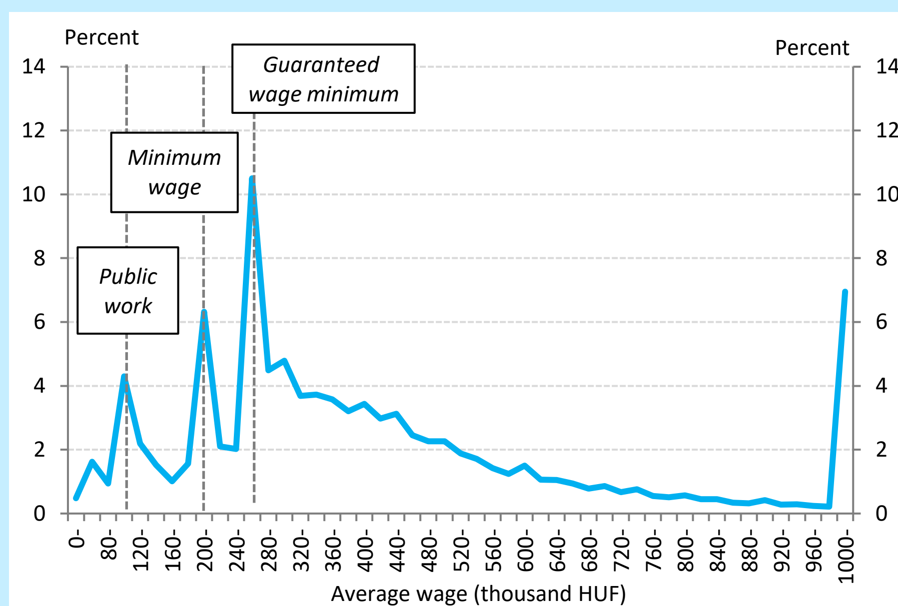
Wage developments remain strong, but wage dynamics have eased since May as inflation declined. In 2023 Q3, gross average earnings in the private sector rose by 15.1 percent year-on-year (Chart 3-25). Average gross regular earnings increased by 15.2 percent compared to the same period of last year, while bonus payments exceeded the average of previous years. The rate of average wage growth was above 14 percent in most branches of the private sector in the third quarter.

Of the countries in the region, nominal wage growth was the highest in Hungary in 2023 Q3. The rate of whole-economy wage growth was 14.8 percent between July and September in Hungary. By contrast, earnings grew by 14.1 percent in Romania, 10.9 percent in Poland, 10.4 percent in Slovakia and 7.1 percent in Czechia year-on-year. In the third quarter overall, real wages fell in Czechia and Hungary, but rose in the rest of the region, though real wage dynamics have returned to positive territory in Hungary from September 2023.

Box 3-2: Economic impact of the minimum wage increase

From 1 December 2023, the minimum wage increases to HUF 266,800 and the guaranteed minimum wage to HUF 326,000 in Hungary. For the minimum wage, this translates to an increase of 15 percent, and for the guaranteed minimum wage it means a 10 percent rise. The change is broadly consistent with the wage dynamics of around 10 percent expected in our previous forecast, as the guaranteed minimum wage has a larger impact on average wages than the minimum wage. One reason for this is that it is closer to the average wage and therefore has a stronger impact on the medium wage level, and another is that the share of people earning the guaranteed minimum wage is higher than the share of people earning the minimum wage (Chart 3-26). We estimate that nearly 20 percent of workers are now earning the minimum wage or guaranteed minimum wage; consequently, one in five workers will be directly affected.

Chart 3-26: Distribution of average earnings in Hungary – 2022



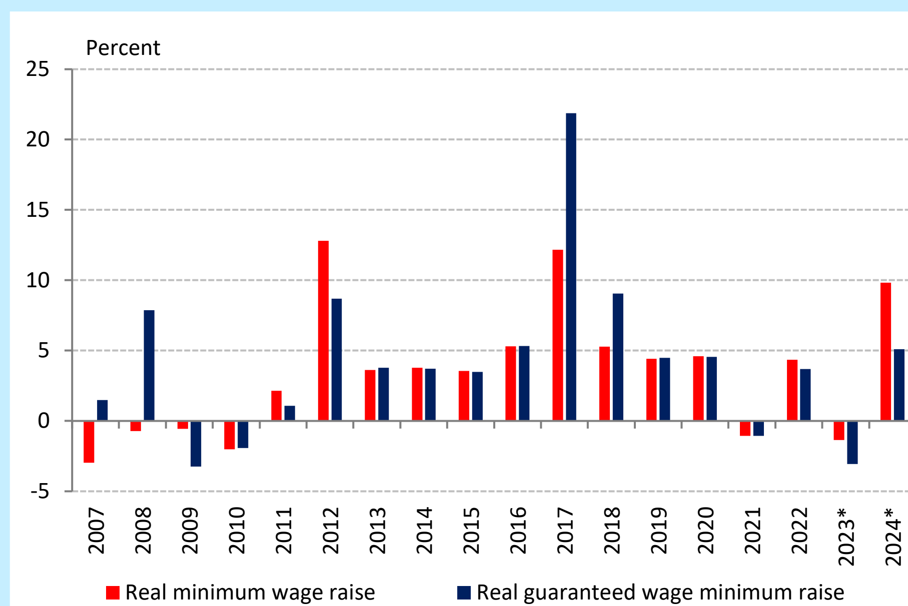
Note: Ratio of the number of earners in a given category to the number of earners in the contribution database of the NTCA.
Source: NTCA

Due to the phenomenon of wage compression, raising the minimum wage and the guaranteed minimum wage will also indirectly affect those earning at higher income levels, typically up to around the average wage. Employers will increase the wages of those earning above the regulated wage to maintain the pay gap between jobs requiring different skills, experience and qualifications. Without this, the resulting wage compression would give rise to wage tensions. Since the rate of increase in the guaranteed minimum wage is the same as the previously assumed general wage dynamics of 10 percent, the current administrative wage hikes will elevate wages moderately only compared to our previous expectation.

The increase in the minimum wage and the guaranteed minimum wage will have a direct impact on households and businesses and an indirect impact on the government. If higher wages increase the real disposable income of households, they will spend more on consumption, which has a positive effect on economic growth. For companies, however, these measures may mean increased costs, to which they may try to adapt in a number of ways. If companies can cope with the increased wage costs without layoffs, the increased minimum wage means more taxes paid to the government.

The increase in administrative wages will contribute to raising the purchasing power of workers' wages in 2024. Our current projection for inflation is 4.0 to 5.5 percent in 2024. This represents an increase of 9.0 – 10.6 percent in real terms for minimum wages and 4.3 – 5.8 percent for the guaranteed minimum wage (Chart 3-27). The size of the minimum wage increase will also affect the increase in overall market wages, with real wages in the private sector set to rise by 4.3 - 6.7 percent in 2024. The rise in real wages is a fundamental condition for consumption growth, which in turn leads to an upswing in industrial production and subsequently, investment by firms producing for the domestic market.

Chart 3-27: Increase in the minimum wage and the guaranteed minimum wage in real terms



Note: *MNB forecast based on the midpoint of the band.
Source: HCSO, MNB

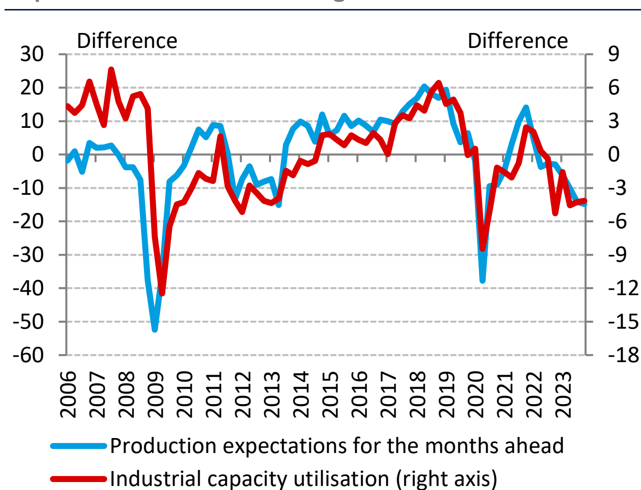
The nature of companies' adjustment to their increased costs is also influenced by the profitability of the company and the current cyclical position of the economy. Since corporate profits have risen significantly in recent quarters, the profitability of most companies provides adequate cover for wage increases. In the medium term, however, the most important condition for raising wages is to increase productivity.

Raising the minimum wage may also help to reduce the shadow economy. The proportion of workers reported to earn the minimum wage is high in some domestic sectors (e.g. this number in food services and construction is around 25 percent), but many of these workers may earn more than that in reality. By reporting the minimum wage for employees, the employer minimises the amount of the public dues payable as part of the actual wage is paid directly to the employee, on which no taxes will be paid. However, this practice hurts the central budget, the followers of fair competition and employees (for several reasons, such as lower pension eligibility and maternity allowances). Raising the minimum wage will thus increase the share of earnings that are included in public taxes, and thus reduce the shadow economy. Beyond a certain point, however, a minimum wage that is set too high may in fact lead to the opposite of the above, as it may push the employer to employ the worker illegally.

3.4 Cyclical position of the economy

The recession is over. After stagnating in 2023 Q2, the output of the Hungarian economy expanded by 0.9 percent in 2023 Q3 compared to the previous quarter. Despite this increase, however, gross domestic product was 0.4 percent below the level recorded one year earlier. The main contributors to the subdued economic performance in recent quarters have been industry and market services. In parallel with this, the cyclical position of the economy is disinflationary. The capacity utilisation and production expectations of manufacturing companies remain below the historical average. Industrial production volumes fell in year-on-year terms in the first nine months of the year, and production expectations for the months to follow worsened.

Chart 3-28: Capacity utilisation and production expectations in manufacturing



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

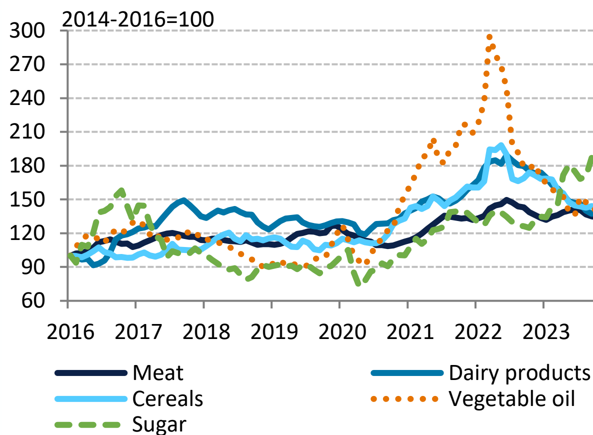
The cyclical position of the economy is estimated to have been negative since the end of 2022 and thus has a disinflationary effect. In the first half of last year, the cyclical position of the economy was positive, driven by buoyant demand and frictions in supply chains, which resulted in a cyclical position with an inflationary effect. Subsequently, however, the cyclical position of the economy started to deteriorate and turned negative in parallel with the deceleration in economic performance. Both the slowdown in demand and the expected unwinding of supply-side constraints resulted in disinflationary effects from the real economy.

According to questionnaire surveys, the capacity utilisation of manufacturing firms has remained stable in recent months and continues to be well below the historical average (Chart 3-28). Production expectations for the coming months continued to deteriorate, falling further below the historical average.

3.5 Costs and inflation

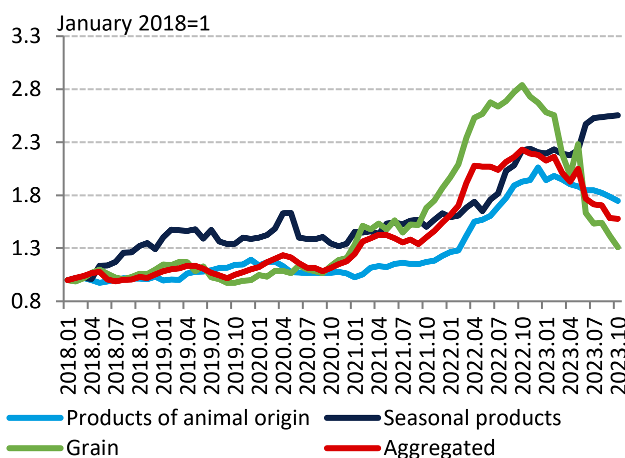
Domestic inflation continued to fall rapidly in the autumn months of 2023, with consumer prices rising by 7.9 percent year-on-year in November. Inflation continues to decelerate broadly, reflecting a combination of disciplined monetary policy, government measures to strengthen competition, a subdued demand environment, base effects and a significantly lower external cost environment than in the previous year. Core inflation and core inflation excluding indirect taxes both fell to the single-digit range, declining to 9.1 percent. Both for inflation and core inflation, the rate of change compared to the previous month was consistent with the historical average for this time of the year. The continued deceleration in underlying inflation is demonstrated by the fact that core inflation was below 3 percent on the shorter, three-month base.

Chart 3-29: Development of world market prices of food



Source: FAO

Chart 3-30: Development of agricultural prices



Note: Based on seasonally adjusted data

Source: HCSO

Global food prices continued to fall in November. One exception was that sugar prices rose during the autumn months, reaching a peak not seen since September 2011, owing to uncertainties about global supply. Prices of dairy products rose slightly, while the prices of meat, cereals and oilseeds fell compared to the end of the summer. The aggregate global food price index has been on a downward trend since November 2022, with food commodity prices falling by 10.7 percent year-on-year in November (Chart 3-29).

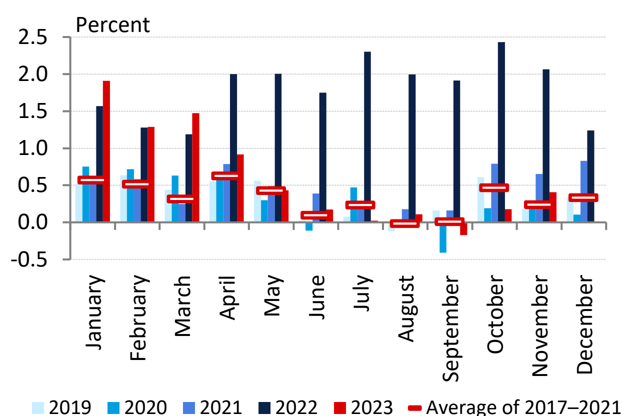
The dynamics of domestic agricultural producer prices continued the downward trend seen since May, with prices falling by 29.2 percent year-on-year in October. Among the component items, only the producer price index for seasonal products rose in October, at a year-on-year rate of 14.9 percent. Prices of products of animal origin have been on a steady downward trend since February, with the price index for these products falling by 9.3 percent on an annual basis in October. Except for its May level, the producer price level of cereals shows a steady correction from its peak in October of last year, with producer prices for cereals falling by 53.9 percent in October versus the same prior-year period (Chart 3-30).

In October 2023, producer prices for manufactured goods were 0.7 percent lower on an annual basis. The annual change in domestic sales prices for total industry fell below 1 percent. The energy industry's producer prices for domestic sales rose by 15.4 percent in September compared to the same month of the previous year, partly as a result of changes in regulatory price control. Subsequently, in October they increased by 0.4 percent on an annual basis, with the regulatory adjustment to the official price dropping out of the base. Producer prices in the food sector were broadly unchanged in October compared to the same period in the previous year. Annual growth rates slowed in food, manufacturing and energy.

3.5.1 Consumer prices

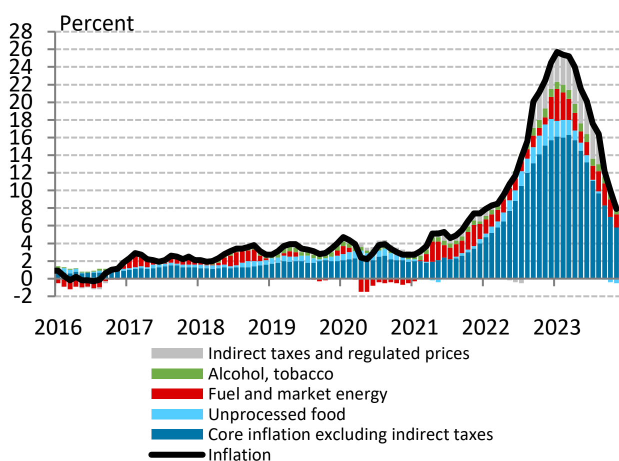
Consumer prices rose by 7.9 percent in November year-on-year. The price of the basket excluding fuel and regulated prices rose by 0.4 percent relative to the previous month

Chart 3-31: Monthly price changes of consumer prices excluding fuel and regulated prices



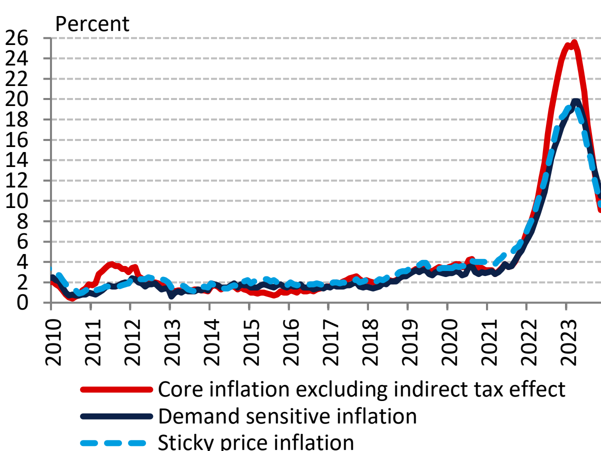
Note: Tax-adjusted, seasonally unadjusted monthly change.
Source: MNB calculation based on HCSO data

Chart 3-32: Decomposition of inflation



Source: MNB calculation based on HSCO data

Chart 3-33: Underlying inflation indicators



Source: MNB calculation based on HCSO data

(Chart 3-31). Month-on-month core inflation excluding processed food, which better reflects underlying trends, also rose by 0.4 percent. Compared to the previous month, inflation decelerated by 2.0 percentage points. Inflation continues to decelerate broadly, reflecting a combination of disciplined monetary policy, government measures to strengthen competition, a subdued demand environment, base effects and a significantly lower external cost environment than in the previous year. Disinflation was a widespread phenomenon, with food prices (-0.6 percentage point), fuel prices (–0.4 percentage point) and industrial goods prices (–0.4 percentage point) as the main contributing factors (Chart 3-32).

Core inflation and core inflation excluding indirect taxes both fell to the single-digit range, declining to 9.1 percent. Annual core inflation slowed by 1.8 percentage points from the previous month. Indicators capturing more persistent inflation trends also dropped in November (Chart 3-33). The continued decline in underlying inflation is reflected by the fact that core inflation was below 3 percent on a shorter-term (3month/3month) basis in November. Both for inflation and core inflation, the rate of change compared to the previous month was consistent with the historical average for this time of the year.

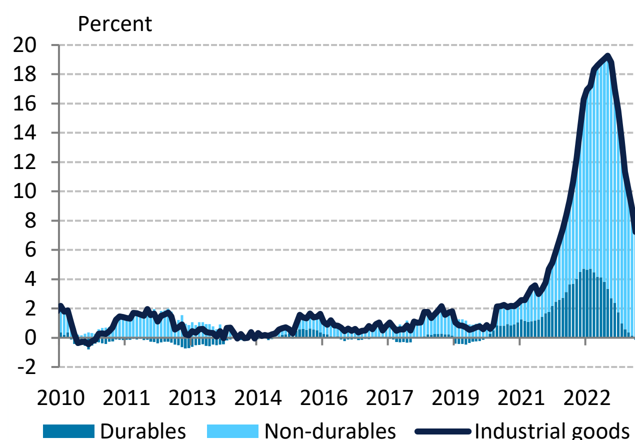
Annual inflation of traded goods dropped to 7.2 percent in November (Chart 3-34). Within this product group, inflation continued to fall for both durable and non-durable industrial goods, with price dynamics for durable goods easing to –0.4 percent and non-durable goods to 10.9 percent in November. Prices in this product group were unchanged compared to the previous month (Chart 3-35).

The inflation of market services dropped to 13.5 percent in November. In services, month-on-month repricing of 0.7 percent was recorded in November (Chart 3-36).

Prices of alcohol and tobacco products have continued to show double-digit increases in recent months, with inflation for this product group easing to 10.6 percent in November. Prices were broadly unchanged relative to October.

The slowdown in annual food price inflation continued, with a rate of 7.1 percent registered in November, according to the data release by the HCSO. Unprocessed and processed food inflation dropped to 2.4 percent and 3.6 percent, respectively, and thus the price index of both product groups decreased significantly. The decline in the inflation of unprocessed food prices mainly reflected the fall in poultry and egg prices, while the slowdown in

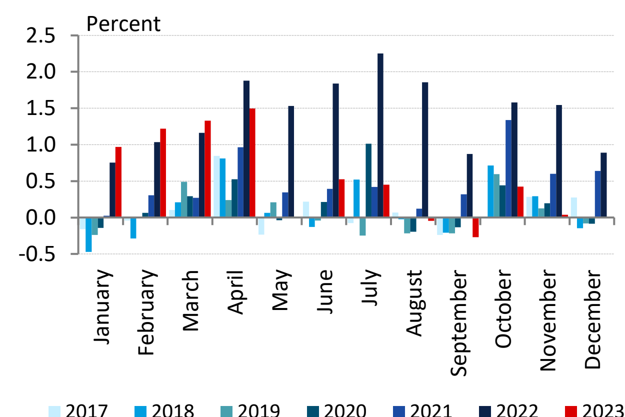
Chart 3-34: Inflation of industrial goods



Note: Tax adjusted, year-on-year change.

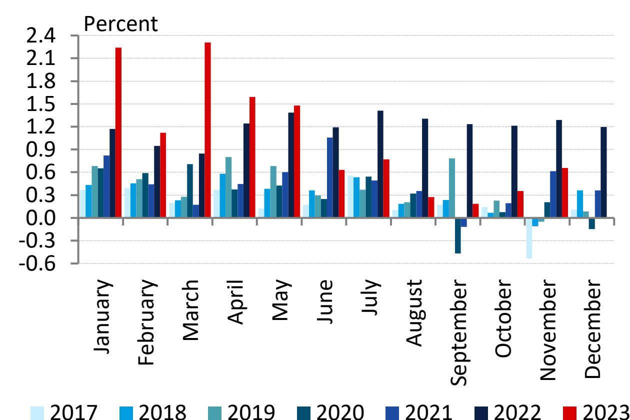
Source: MNB calculation based on HCSO data

Chart 3-35: Monthly price changes of traded goods



Note: Seasonally non-adjusted, tax adjusted monthly change.
Source: MNB calculation based on HCSO data

Chart 3-36: Monthly price change of market services



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

processed food prices mainly reflected the decline in milk and dairy product prices. Unprocessed and processed food prices rose by 1.8 percent and 0.3 percent, respectively, relative to October.

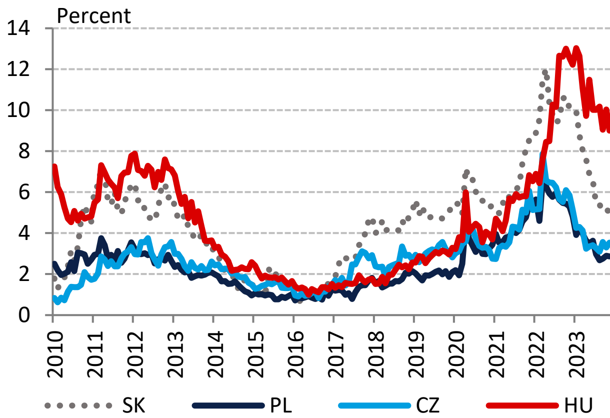
The price dynamics of fuels amounted to 25.4 percent. On a monthly basis, the price of the product group decreased by 3.6 percent in November, mainly due to narrowing margins.

In October, both headline inflation and core inflation were in the more favourable, lower half of the forecast range of the September Inflation Report. In November, inflation was lower than the projection in the September Inflation Report, explained in large part by the decline in volatile fuel prices.

3.5.2 Inflation expectations

In Hungary, households' inflation expectations have not changed significantly since June. Inflation expectations in the countries of the region did not change significantly in October and November compared to 2023 Q3 (Chart 3-37).

Chart 3-37: Inflation expectations in the region



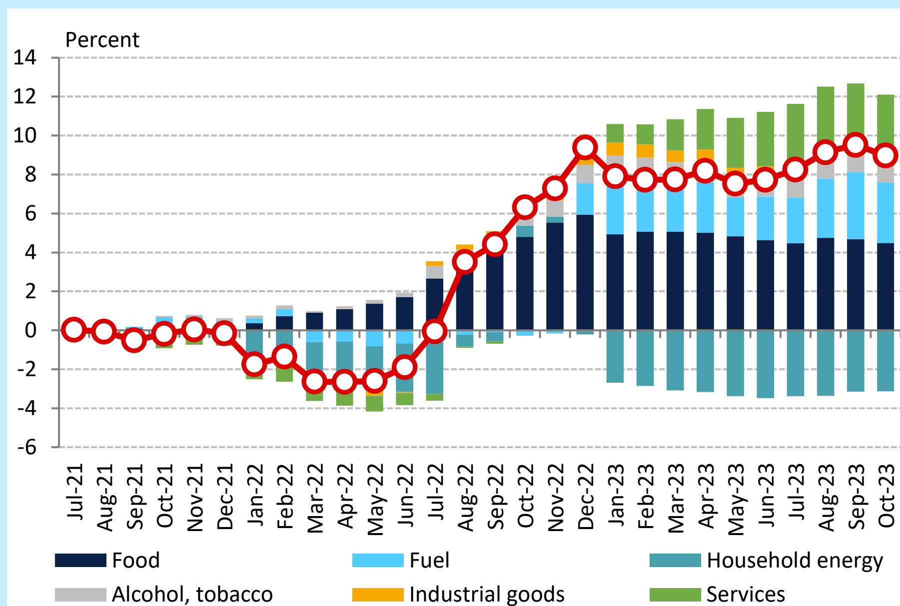
Source: MNB calculations based on European Commission data

Box 3-3: Developments in food prices

According to the product classification of the HCSO, food accounts for nearly 29 percent of the total consumer basket and thus developments in food prices have a considerable impact on inflation. In addition, as foodstuffs are one of the items most frequently purchased by households, they influence the subjective inflation perception and hence the inflation expectations of the population. This Box provides an overview of recent trends in food price dynamics.

Food price developments have had a profound impact on domestic inflation trends and contributed significantly to Hungary's higher price dynamics compared to its regional peers. Food accounted for nearly two thirds of the price increase differential materialising between Hungary and the Visegrád countries by the end of 2022 relative to mid-2021 (Chart 3-38). As a result of the price increase, the price level of the product group rose to 96 percent of the EU average by October 2023 (see Chart 1-12 in Box 1-2).

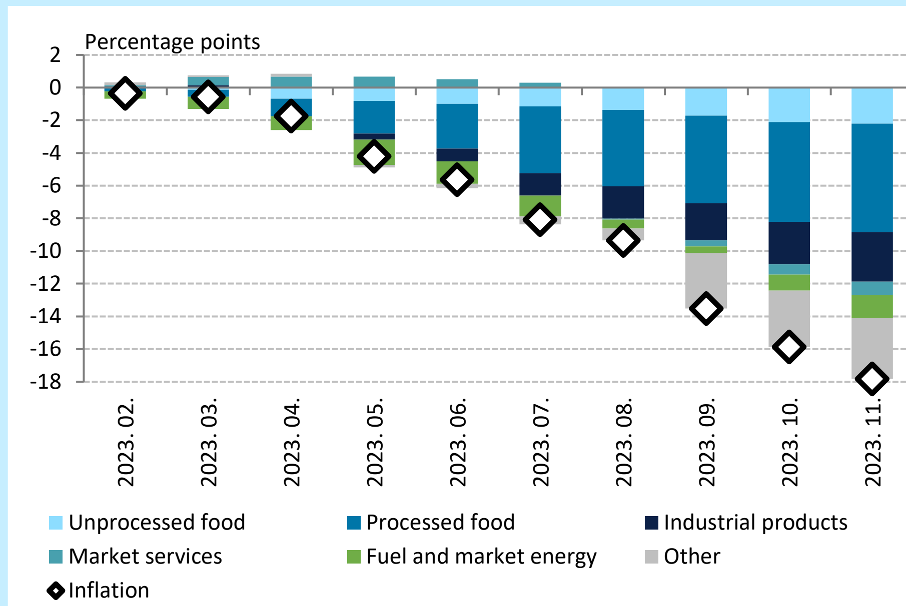
Chart 3-38: Decomposition of Hungary's price increase surplus compared to the Visegrád countries relative to June 2021



Note: Based on HICP data.
Source: Eurostat

Food price dynamics have also contributed significantly to the disinflation that commenced at the beginning of 2023. Of the 17.8-percentage-point decline in inflation registered between January and November 2023, 6.6 percentage points were attributed to processed food and another 2.2 percentage points to unprocessed food (Chart 3-39). Thus, almost half of the disinflation following the peak inflation in early 2023 is related to food.

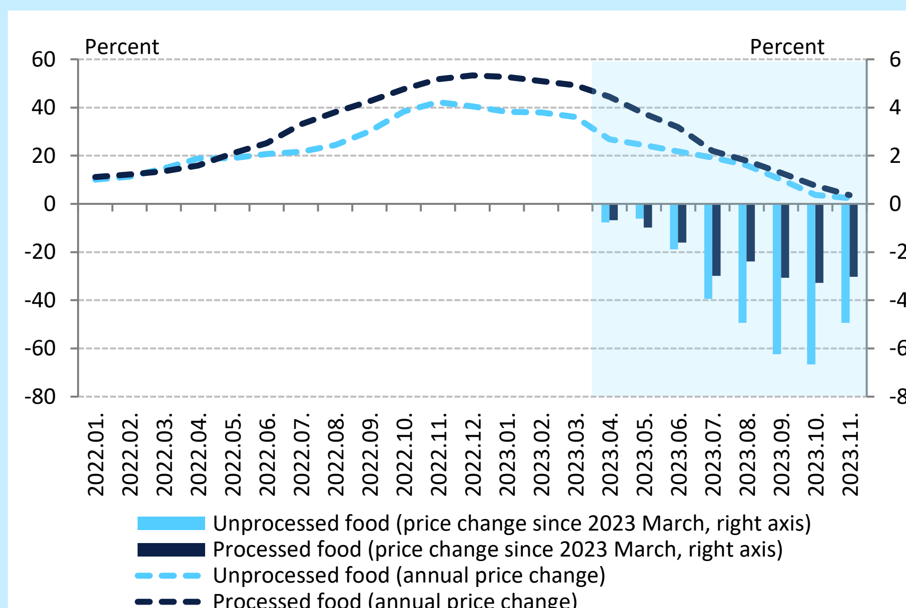
Chart 3-39: Decomposition of the decline in inflation since January 2023



Source: HCSO

In the case of food, there has been a decline not only in annual price dynamics, but also in the price level in recent months. The price of unprocessed food fell each month between March and October compared to the previous month, while the price of processed food also declined each month, except for August. As a result, unprocessed food prices dropped by 4.9 percent and processed food prices by 3.0 percent between March and November (Chart 3-40). The decline in global food commodity prices starting from the spring of 2022 (Chart 3-29), lower energy prices compared to the previous year, disciplined monetary policy, government measures supporting competition and a subdued demand environment all contributed to the moderation in prices.

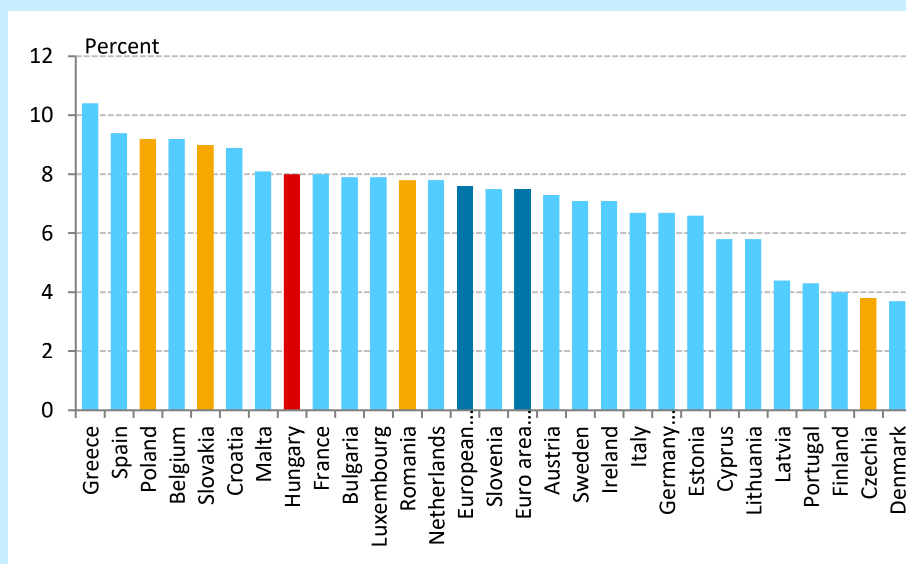
Chart 3-40: Inflation trends for processed and unprocessed food



Source: HCSO

Food price inflation was the first to drop to the regional average of the main product groups, as disinflation in the food product group was faster than for any other goods and services. Based on Eurostat's methodology, food inflation amounted to 8 percent in Hungary in October, which does not differ considerably from the 7.5-percent average for the Central and Eastern European region and the 7.6-percent average for the European Union (Chart 3-41).

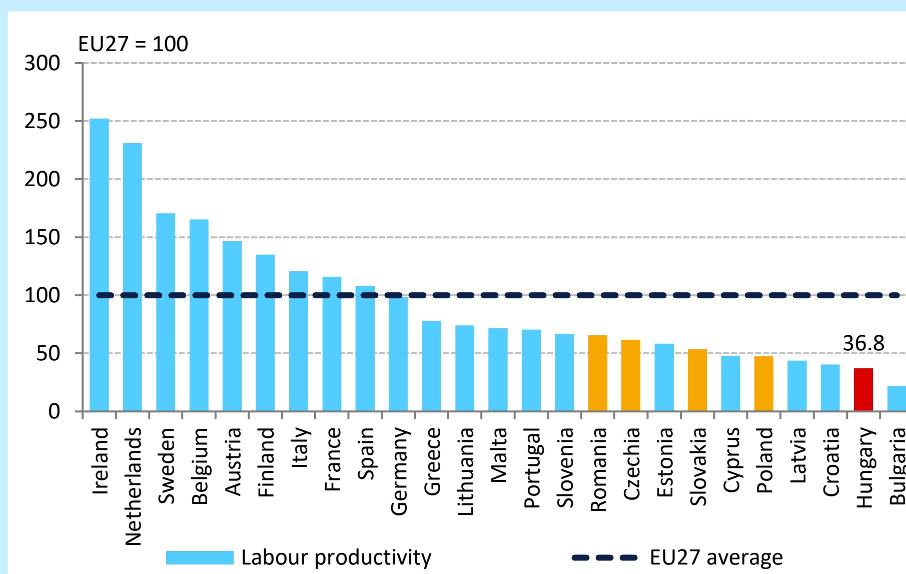
Chart 3-41: Food inflation in European Union Member States (October 2023)



Note: Based on HICP data.
Source: Eurostat

Although Hungarian food inflation is back in line with regional and EU trends as cost shocks fade, the experiences from the past two years have demonstrated that food prices in Hungary are more susceptible to international cost shocks than those in the region or the rest of the EU. The higher cost sensitivity of food companies is also evidenced by historical data. Experiences of the past two decades have shown that – compared to the EU average – Hungarian food producer and consumer prices are more than twice as sensitive to international cost shocks affecting the whole of Europe. This higher cost sensitivity can be attributed to the insufficient productivity of the Hungarian food industry, which is the second lowest in the European Union (Chart 3-42). **Increasing the competitiveness and productivity of the food industry is therefore of paramount importance if Hungary is to reduce the cost-sensitivity of the sector and hence, its impact on food inflation.**

Chart 3-42: Food industry labour productivity (2021)



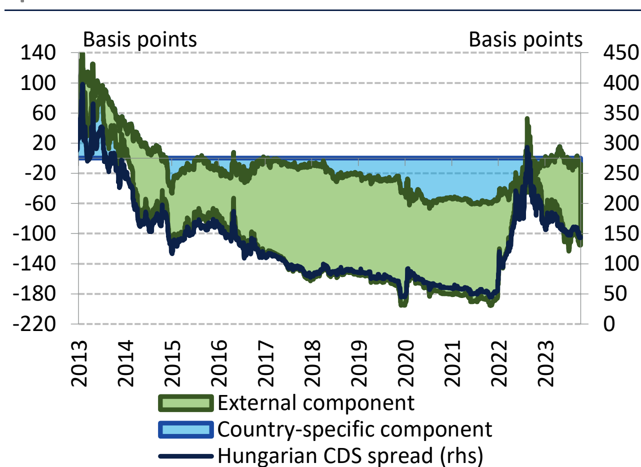
Note: Gross value added per employee calculated on the basis of national accounts data.
Source: Eurostat

4 Financial markets and interest rates

4.1 Domestic financial market developments

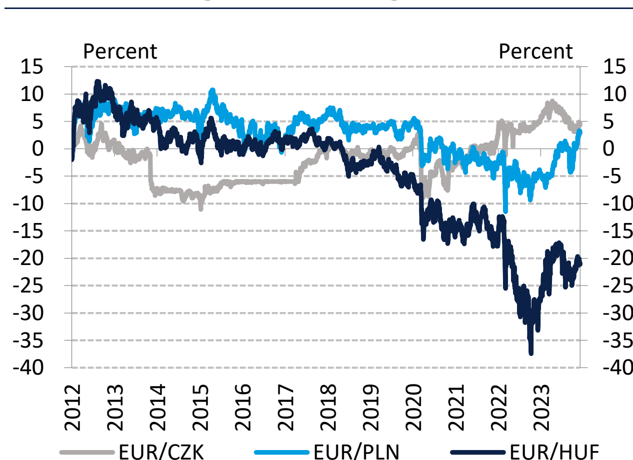
On the whole, sentiment in the developed and emerging financial and capital markets has improved over the past quarter. In early October, the conflict in Gaza temporarily increased investor risk aversion, but diplomatic efforts and the implementation of the ceasefire were well received by markets. The avoidance of a US government shutdown and larger-than-expected declines in inflation in the US and Europe also contributed to improving investor risk appetite. As a result of improving global investor sentiment, domestic interbank and government security yields also fell substantially, supported by the turnaround in inflation, the normalisation of monetary policy and the reduction in the country's risk premium. The forint continued to strengthen against the euro, by 3.6 percent overall during the period, lagging behind the 6.7-percent appreciation of the Polish zloty, but above the minimal appreciation of the Czech koruna and Romanian leu.

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 mean an appreciation of the currency.
Source: Bloomberg

4.1.1 Risk assessment of Hungary

Hungary's credit risk premium continued to decline over the period. There was a slight increase at the start of the period due to the conflict in Gaza, followed by easing, and thus for the period as a whole, the premium decreased by 12 basis points to 145 basis points (Chart 4-1). Country-specific factors slightly decreased the CDS premium, but at the same time, much of this decline resulted from international factors.

4.1.2 Foreign exchange market trends

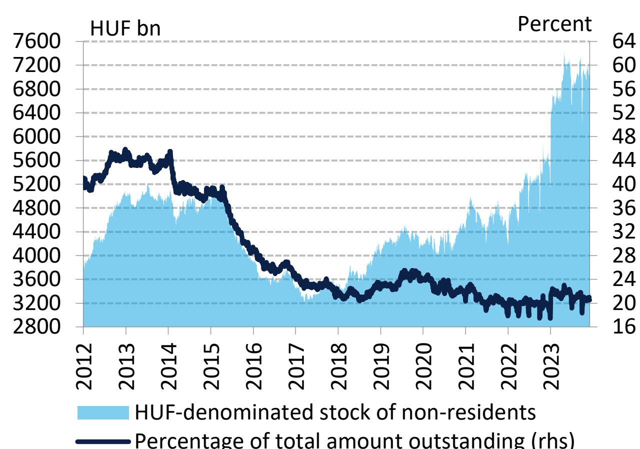
During the period under review, the forint gradually appreciated against the euro, strengthening by 3.6 percent overall by the end of the period. In the region, the Polish zloty appreciated by 6.7 percent, while the exchange rate of the Czech koruna and Romanian leu did not change materially in the period (Chart 4-2). The exchange rates of regional currencies were influenced by global risk appetite, monetary policy actions by developed and regional central banks, and incoming macro data. All of the regional currencies appreciated against the US dollar in the past period.

4.1.3 Government securities market and changes in yields

The volume of HUF government securities held by non-residents continued to increase in the past quarter (Chart 4-3). Non-residents' holdings of HUF government securities rose by HUF 469 billion during the period to HUF 7,040 billion. Their ownership share of forint government securities also grew and is now around 20.5 percent.

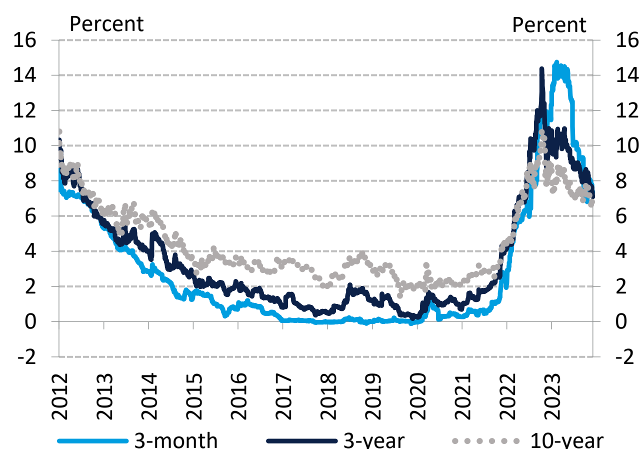
At most of the government bond auctions during the period, bids in excess of the announced amount were admitted by the Government Debt Management Agency (ÁKK), as total demand at the auctions was more than five times higher. Average auction yields declined in line with secondary market yield levels. Average yields on the

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



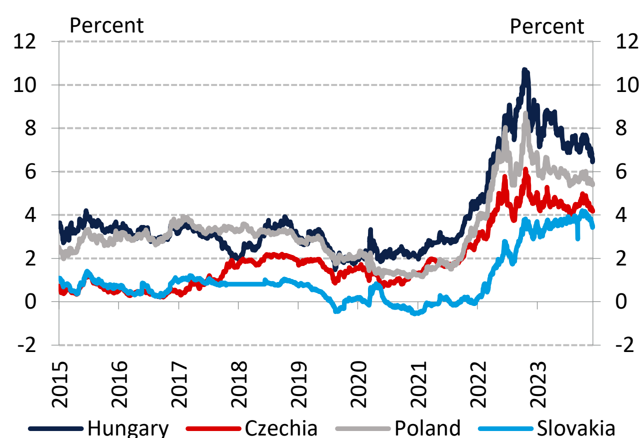
Note: The chart shows the stock of T-bills and T-bonds.
Source: MNB

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

3-month discount treasury bill auction fell by 70 basis points, and by 94 basis points at the 10-year auction.

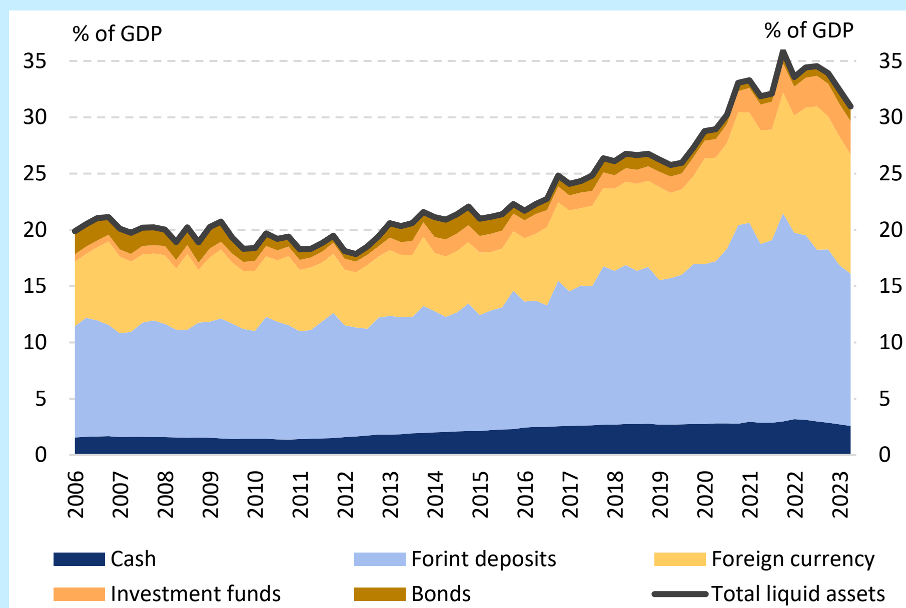
Yields dropped on the short, middle and long sections of the government securities market yield curve, with the largest decline observed for medium maturities (Chart 4-4). Over the period as a whole, the 5-year yield fell by 152 basis points, while the 10-year yield dropped by 108 basis points. Among interbank yields, the 3-month BUBOR decreased by 168 basis points to 10.61 percent.

Long benchmark yields in the region dropped substantially during the period (Chart 4-5). Ten-year Polish yields fell by 55 basis points, Czech yields by 59 basis points and Slovak euro yields by 70 basis points.

Box 4-1: Companies hold ample liquid financial assets

The liquid assets of non-financial corporations increased sharply until mid-2022 and then declined somewhat as a share of GDP, due to high inflation. This correction notwithstanding, their level remains very high compared to previous decades; therefore, the availability of funds does not constrain corporate production and investment. Liquid assets comprise cash, deposits, and corporate holdings of investment fund shares and bonds that can be sold quickly. The stock of liquid assets held by companies remained broadly stable, fluctuating at a level of around 20 percent of GDP until 2015. Subsequently, however, there was a significant increase as liquid assets. The amount of liquid assets of companies surged to 25 percent of GDP by 2019 moving on an upward trend. After this, a decline in investment during the pandemic, higher uncertainty and public funding provided to the sector, and later the revenue-increasing effect of profit-driven inflation resulted the amount to advanced to 35 percent of GDP by 2022 (Chart 4-6). As a result of high inflation, the stock of liquid assets as a percentage of GDP has declined somewhat recently (while its nominal stock was broadly stable), but it remains at high levels, above 30 percent of GDP. It is clear, therefore, that funds of corporations are at historically high levels.

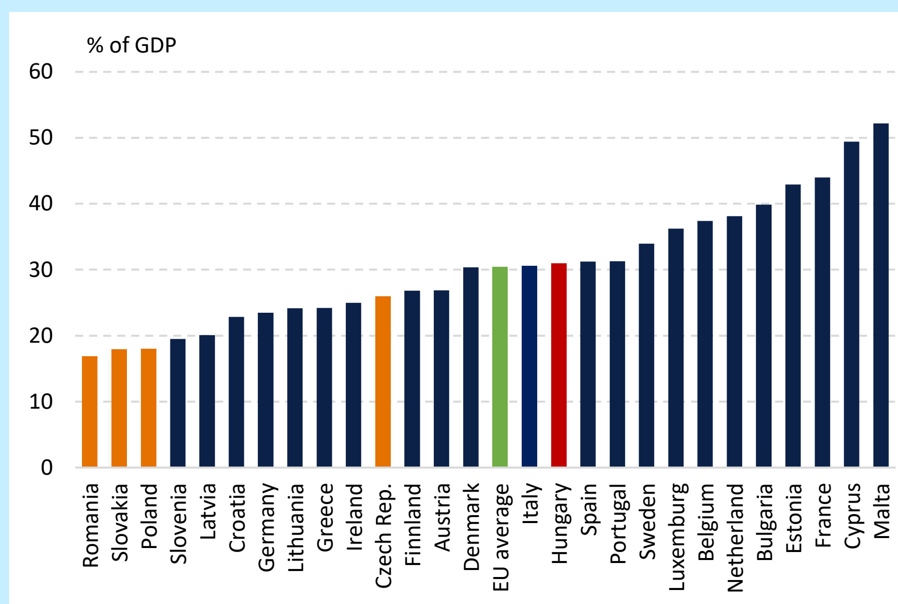
Chart 4-6: Composition of the liquid assets of non-financial corporations as a percentage of GDP



Source: MNB

Internationally, the liquid assets of Hungarian companies are significantly above the typical level for the region. In the first half of the 2010s, the level of domestic companies' liquid assets was around 20 percent of GDP, which was still close to the regional level. Following the increase presented above, however, by 2022 the level substantially exceeded those observed in the Visegrád countries and Romania (Chart 4-7). At above 30 percent, the GDP-proportionate ratio is now above the average of the European Union as a whole.

Chart 4-7: Liquid assets of non-financial corporations as a percentage of GDP in the EU



Source: Eurostat

It is worth analysing the structure of liquid assets to better understand the driving forces behind its development. While the increase in liquid assets has been broad-based with each of its components contributing, the recent decline is mainly attributed to a fall in forint deposits, which suggests that it was not the level of the central bank base rate that has kept the sector's liquid assets at high levels. Between 2015 and 2022, the sharp increase of 12–13 percentage points in the stock of liquid assets as a percentage of GDP was mainly driven by an increase in forint and foreign currency deposits; however, to a lesser extent, investment fund unit and bond holdings also increased as a percentage of GDP. By contrast, the recent decline was only due to a fall in corporate forint deposits by around 5 percentage points, while the stock of foreign currency deposits remained broadly stable as a percentage of GDP, and the stock of security-type liquid asset components even grew somewhat. Thus, HUF-denominated corporate deposits fell (by about one quarter in real terms adjusted for inflation) in a period when the central bank base rate was at a high level. In other words, the evolution of the asset structure of corporations does not suggest that companies prefer to hold their money in banks to profit from the high forint interest rates.

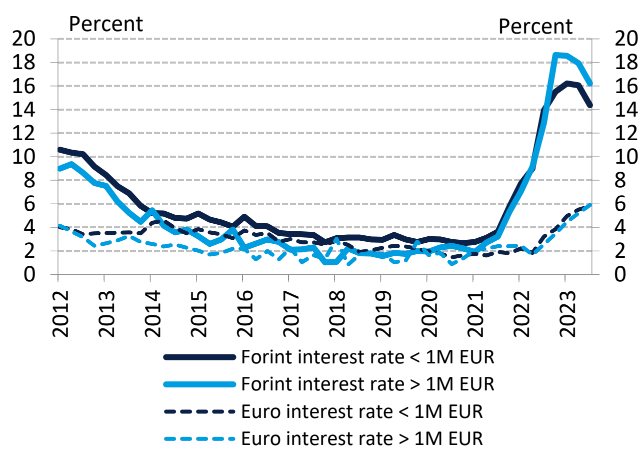
Corporate savings materialised mainly in the form of an increase in foreign currency deposits and investment fund shares, which consist of foreign securities to a significant degree. These are assets which finance the foreign – rather than the domestic – economy, and whose returns are not linked to the domestic interest rate environment. This supports the notion that the reason for the restraint in corporate investment is – instead of the interest rate level – the uncertainty associated with high inflation.

Corporate investment decisions are thus not only – and not mainly – influenced by the available interest rate. This is also confirmed by the fact that demand for investment loans of the Baross Gábor Loan Programme remained low despite its favourable financing conditions (significantly negative real interest rate), as only 18 percent of the loans provided were investment loans, while under the Széchenyi Card Programme only 5 percent of the contracted amount this year was for investment loans. Corporate opinion also suggests that mostly non-financial constraints hinder production: according to European Commission data, lack of demand is the primary problem, the main reason behind which was high inflation (for more details see our Special topic 6.1 on the impact of real interest rates on consumption and investment). High inflation brought weak demand and economic uncertainty, which made companies to wait with expansion, and that is why the investment rate could not recover. This trend may be reinforced further by the extension of the deposit interest rate freeze from this December, which, in the context of continued uncertainty, weakens the efficiency of monetary policy, increases reputational and financial market risks and thus hampers the achievement of price stability which is critically important for the recovery of investment.

4.2 Credit conditions of the financial intermediary system

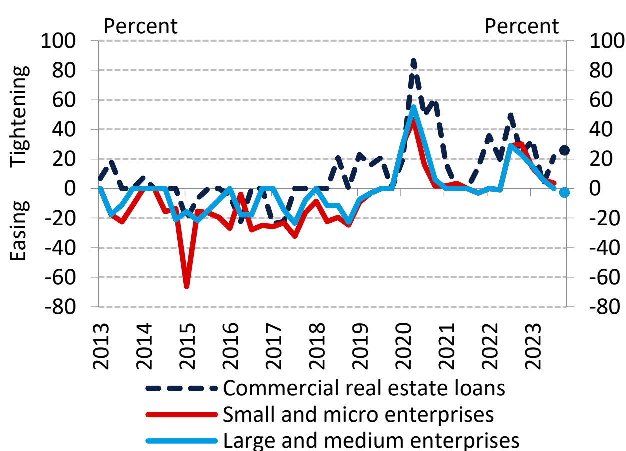
In 2023 Q3, corporate credit conditions did not change significantly in any size category, while a net 21 percent of banks tightened their credit standards on commercial real estate loans. In the third quarter, 39 percent of banks reported a decline in demand for corporate loans. Banks' lending capacity remains high, both in terms of capital and liquidity. Banks did not significantly change their standards for housing loans and consumer loans, but looking ahead to the next six months, conditions are expected to ease in the housing loan market. Banks reported an increase in demand both for housing loans and consumer loans in the third quarter and looking forward they expect demand to increase further in both sub-markets. The average financing cost of newly contracted corporate HUF loans and the average cost of newly contracted fixed-rate long-term housing loans both declined during the period under review.

Chart 4-8: 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 4-9: Changes in credit conditions in corporate sub-segments



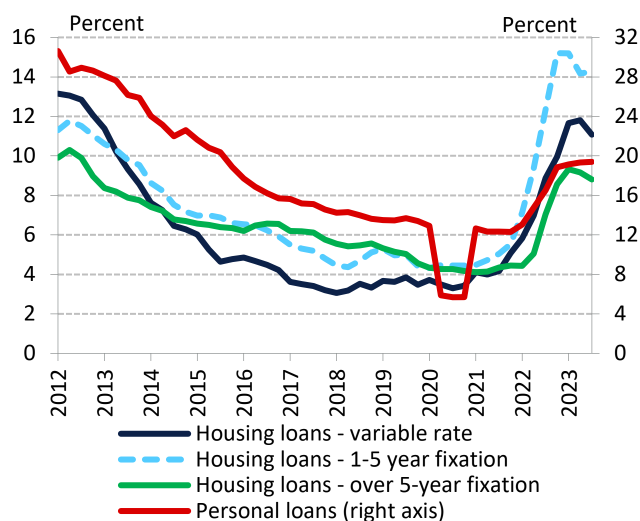
Note: Net percentage balance of respondents tightening/easing credit conditions weighted by market share. Forecast for 2023 Q4 and 2024 Q1.
Source: MNB, based on banks' responses

4.2.1 Corporate credit conditions

In 2023 Q3, HUF lending rates fell in conjunction with the decline in borrowing costs. The average interest rate on newly contracted corporate HUF loans with variable interest rates within a 12-month period, which are largely market-based, decreased by 169 basis points from the previous quarter for small loans and by 171 basis points for bigger loans, net of money market transactions. As a result, the average interest rate on forint loans was 15.9 percent at the end of September (Chart 4-8). The interest rate on small, EUR-denominated loans increased by 31 basis points, while the interest rate on large EUR loans rose by 70 basis points in the third quarter, bringing the average cost of funds of EUR loans to 5.9 percent at the end of September. The larger increase in corporate euro interest rates was due to the rise in interbank interest rates in the euro area.

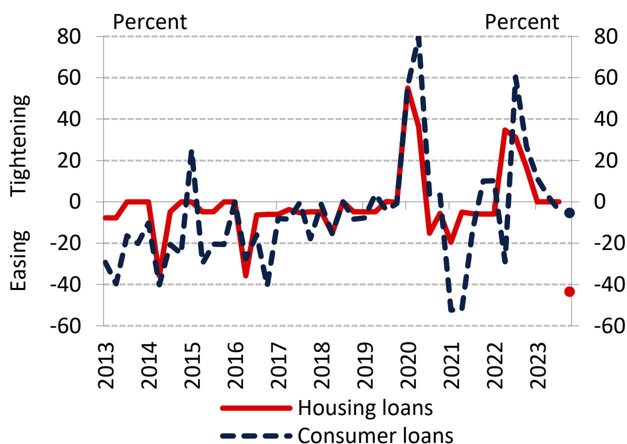
Overall, banks did not make any significant changes to corporate credit conditions in the third quarter. In the third quarter, a net 4 percent of banks participating in the Lending Survey tightened access to credit for small and micro enterprises, while there was no change in standards for large and medium-sized enterprises. A net 21 percent of banks reported tightening credit standards for commercial real estate loans. Industry-specific problems in the corporate sector and uncertainty about the economic outlook were seen as factors pushing towards tightening, while banking competition and the liquidity situation were seen as factors that supported easing. Banks' lending capacity remains high. Looking to the next six months, no significant change in corporate credit conditions is expected: a net 26 percent of banks plan to tighten conditions for commercial real estate financing, while 3 percent of banks envisage tightening credit standards for large and medium-sized enterprises and small and micro enterprises each (Chart 4-9). In terms of credit demand, a net 39 percent of banks reported a decline in demand in the third quarter and looking six months forward, a smaller proportion of banks, at 6 percent in net terms, reported a further decline in demand.

Chart 4-10: 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 4-11: 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 Q4 and 2024 Q1.
Source: MNB, based on banks' responses

4.2.2 Household credit conditions

The average interest rate on long-term fixed-rate mortgages fell slightly during the quarter. The average APR for housing loan contracts signed in 2023 Q3 was 14.3 percent for loans with fixed interest rates for 1–5 years (with a significant share of subsidised loans linked to the Home Purchase Subsidy Scheme for Families), while for loans with fixed interest rates for a term of more than 5 years, the average cost of credit reached 8.8 percent in September 2023, after a 36-basis-point reduction (Chart 4-10). In 2023 Q3, the volume of certified consumer-friendly housing loans with an interest period of at least 5 years accounted for 43 percent of new housing loan disbursements in the quarter, while the share of loans with a fixed term of at least 10 years reached 79 percent. The average smoothed APR for personal loans rose by 5 basis points to 19.4 percent at the end of the period under review.

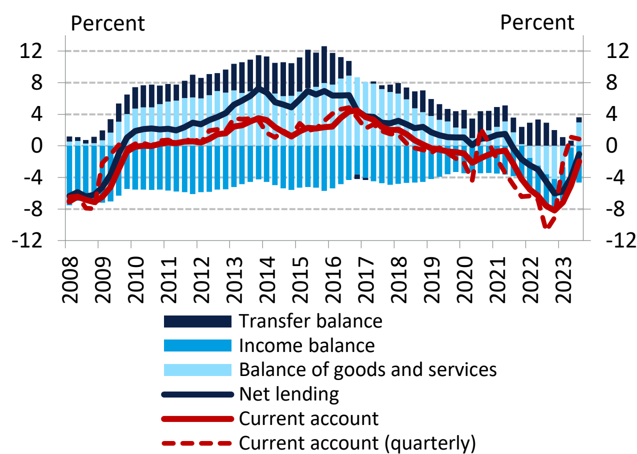
While housing loan standards have not changed, credit easing is likely looking ahead. Based on responses to the Lending Survey, banks did not change their standards for housing loans in 2023 Q3, but looking ahead to the last quarter of 2023 and the first quarter of 2024, 44 percent of banks plan to ease in net terms (Chart 4-11). In consumer credit, a net 4 percent of credit institutions eased access to credit during the third quarter, and looking ahead a net 5 percent of banks expect to ease standards further in the consumer credit market. In net terms, 63 percent of banks registered higher demand for housing loans, while 22 percent of banks perceived rising demand for consumer loans in the third quarter, and looking ahead 94 percent and 10 percent, respectively, expect demand to continue to grow in the future.

5 Balance position of the economy

5.1 External balance and financing

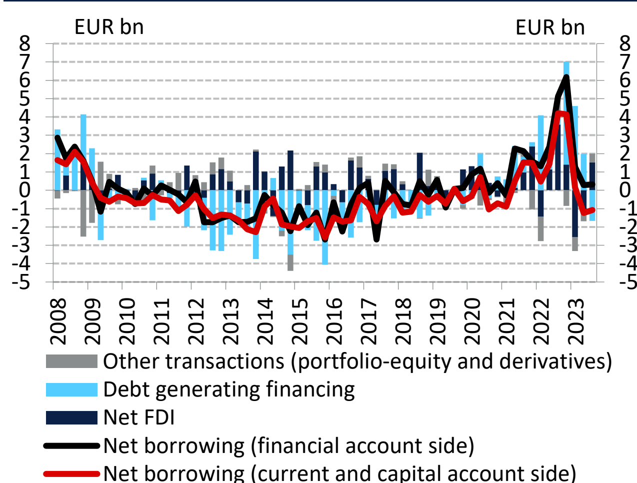
In 2023 Q3, the economy's four-quarter net borrowing decreased to 1 percent of GDP and the current account deficit to 2 percent of GDP, while the quarterly figure reflecting short-term developments has shown a surplus since the second quarter. The improvement in the external balance was linked to the trade balance, mainly driven by lower energy prices and a general contraction in domestic demand. On the financing side, net FDI registered inflows, while debt outflows took place for the first time in three years. In 2023 Q2, developments in Hungary's external debt-to-GDP ratios were mixed: the increase in gross external debt halted, while net external debt rose somewhat.

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: 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 perspective, 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 Developments in Hungary's external balance position

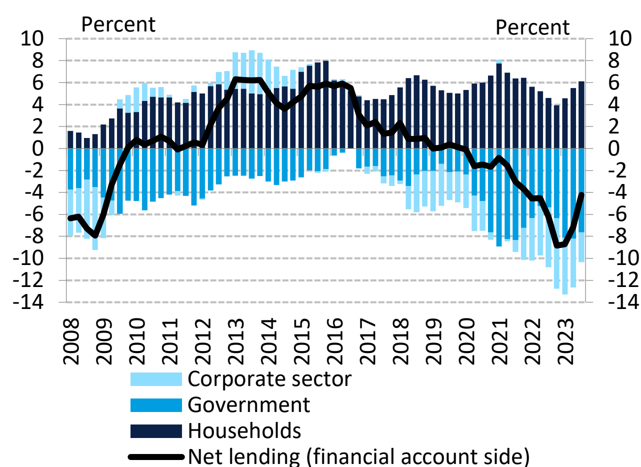
The trade balance and hence the external balance indicators continued to improve rapidly in 2023 Q3 (Chart 5-1). Based on preliminary monthly data, the Q3 decline in the current account deficit was mainly attributable to the trade balance, and within that to the terms of trade improvement due to lower energy prices. The adjustment in energy consumption and the moderation in imports due to lower consumption and investment contributed to the improvement in the balance of goods, but more subdued exports in a less favourable international environment have also had a moderating effect on imports. The balance of services, which plays an important role in the foreign trade balance, has remained broadly in surplus as a proportion of GDP. The deficit on the income balance was increased by rising interest expenditures and by the higher profits of foreign companies. As in the previous quarter, the surplus of the transfer balance remained below 1 percent of GDP.

5.1.2 Developments in financing

There were significant FDI inflows in 2023 Q3, while the outflow of debt liabilities was considerable (Chart 5-2). Following the decline in 2023 H1, which was related to one-off items, the stock of net FDI rose significantly again in the third quarter. Debt at the level of the national economy declined due to transactions for the first time in three years in the third quarter: the banking system raised a moderate amount of funds, while the general government and corporations substantially reduced their external debt.

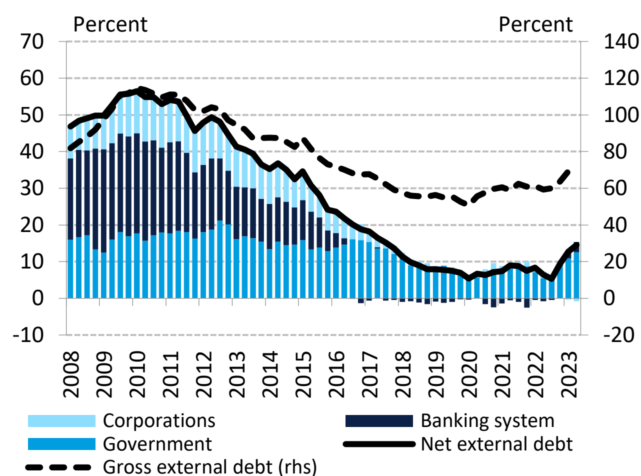
In 2023 Q3, all three domestic sectors contributed to the decline in net borrowing (Chart 5-3). In the third quarter, borrowing by the general government eased somewhat, even though decelerating sales tax revenues and rising interest expenditures maintained it at high levels. With nominal incomes expanding rapidly, falling domestic demand fostered an improvement in the net financial

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 perspective, 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

position of the private sector. Households' net lending position continued to strengthen amidst the decline in consumption. Weak investment spending and high profit income reduced the corporate sector's net borrowing.

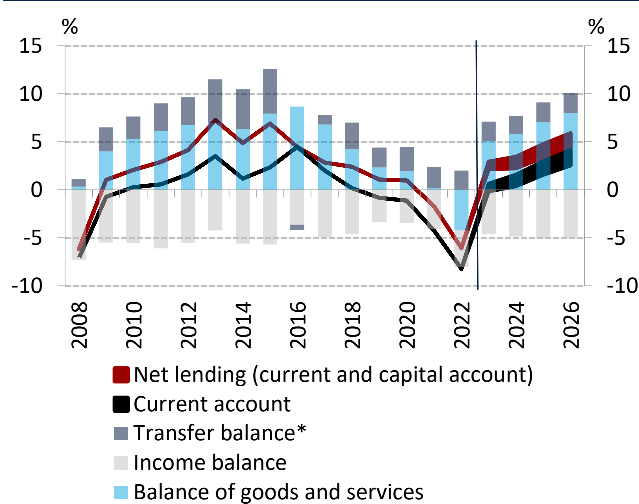
In 2023 Q2, the net external debt of the economy rose to over 15 percent of GDP (Chart 5-4). Besides the new debt liabilities taken on in recent quarters, the increase in the indicator has also been supported by revaluation effects, which were dampened somewhat by the impact of nominal GDP growth. The rise in gross external debt came to a halt in the second quarter and it stood at around 69 percent of GDP at the end of June.

5.2 Forecast for Hungary's net lending position

Thanks to the improving trade balance, the current account balance will turn into a modest surplus in 2023 and continue to increase in the coming years. This year, the improvement in the external position mainly reflects the lower energy bill of the economy, the moderating effect of subdued domestic demand on imports and, to a lesser extent, growth in exports. From 2024, the positive impact of export growth will become more pronounced as production from new export capacities begins. The normalising global economic environment is also expected to boost exports. Financing trends in individual sectors suggest that the net position of the private sector will turn into a surplus as a result of the decline in domestic consumption this year. At the same time, the net borrowing of the government continues to decrease.

Thanks to the significantly improving trade balance, the current account balance will turn into a modest surplus in 2023 (Chart 5-5). Following a deficit of more than 8 percent of GDP last year, the current account balance has exhibited a significant increase in 2023. The rapid improvement in the external balance is mainly due to lower energy prices and the adjustment of energy consumption, as well as to tightening imports amidst decreasing domestic demand. In the coming year, the continued positive impact of lower energy prices is expected to be modest, and growth in domestic consumption is expected to increase imports once again. Exports will gain new momentum as new export capacities begin production and the global economic environment normalises. Accordingly, the growth rate of exports will persistently exceed that of imports, which will also expand as consumption and investment recover. In 2023, the current account will register a modest surplus, overall, and the balance will continue to increase over the forecast horizon. The capital account balance is decreasing as the EU budget cycle comes to an end; nevertheless, it is expected to continue to contribute significantly to Hungary's net lending.

Chart 5-5: 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

The decline in the energy deficit contributes strongly to the improvement in the external balance. Lower energy prices, adjusting economic sectors and rising nominal GDP will substantially reduce the energy deficit as a share of GDP in 2023. The sharp increase in the surplus on the balance of other goods this year is primarily due to the contraction in domestic demand. The coming years will likely see a modest, further improvement in the energy balance (Table 5-1).

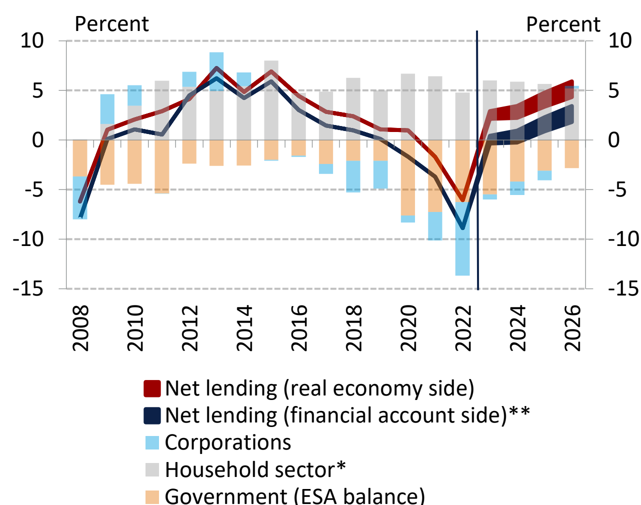
Table 5-1: Development of the trade balance as a percentage of GDP

	2022	2023	2024	2025	2026
Balance of goods	-9.0	0.1	0.9	2.0	3.0
Balance of energy	-9.9	-4.3	-3.8	-3.3	-3.2
Balance of other goods	0.9	4.4	4.6	5.3	6.2
Balance of services	4.8	5.0	5.0	5.0	5.0
Trade balance	**-4.2**	**5.1**	**5.9**	**7.0**	**8.0**

Source: HCSO, MNB

Financing trends in individual sectors suggest that the net position of the private sector will turn into a surplus once again in 2023, while the general government deficit will decline (Chart 5-6). The budget deficit will continue to decline in the coming years, but its level remains relatively high. The decline is supported by lower energy prices in 2024 and lower interest expenditures starting from 2025. The net financial savings of households increases in parallel with this year's fall in household consumption and investment. It will then start to decrease slowly over the

Chart 5-6: 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

forecast horizon as consumption and household investment recover. As a result of subdued corporate investment and sharply increasing corporate profits, the net borrowing of corporations will fall significantly in 2023. This trend is also supported by lower energy prices. In the second half of the forecast horizon, the recovering external environment will reduce the sector's net borrowing even further.

5.3 Fiscal developments

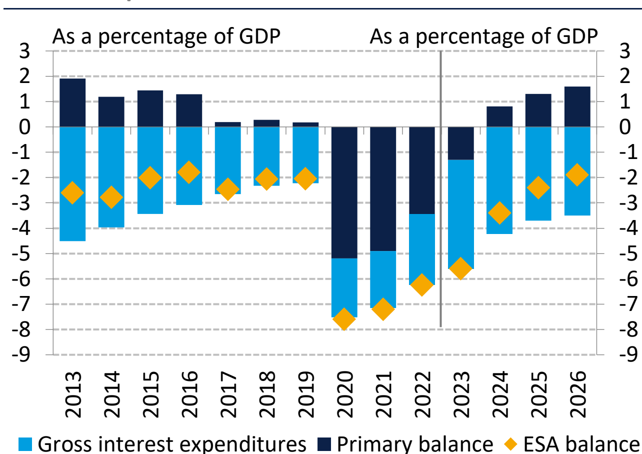
The deficit may decline from the previous year's level of 6.2 percent of GDP and amount to between 5.2 percent and 6 percent of GDP in 2023, according to our forecast. The deficit ratio may range between 2.9–3.9 percent in 2024, 1.9-2.9 percent in 2025 and 1.4–2.4 percent in 2026, depending on macroeconomic developments and fiscal control. Achievement of the budget targets is surrounded by risks over the entire forecast horizon. This year, the increase in the deficit target in October was mainly due to a substantial shortfall in VAT revenues in the high inflation environment and a significant rise in government interest expenditures. Amid a sharp decline in global energy prices, measures implemented together with the 2024 Budget Act and those announced thereafter may facilitate the achievement of the deficit target in the coming years, but uncertainty about the EU funds coupled with decelerating tax revenues and rising government interest expenditures in the current macroeconomic environment make it difficult to achieve the target. The government debt-to-GDP ratio may fall to the vicinity of 73 percent by the end of 2023 and subsequently to around 67 percent by the end of the forecast horizon.

Table 5-2: General government balance indicators

	2023	2024	2025	2026
ESA balance	(-6.0) - (-5.2)	(-3.9) - (-2.9)	(-2.9) - (-1.9)	(-2.4) - (-1.4)
Primary ESA balance (point estimate)	-1.3	0.8	1.3	1.6
Gross interest expenditures	4.3	4.2	3.7	3.5

Note: The time series of the primary ESA balance (point estimate) are consistent with the midpoint of the ESA balance forecast bands.
Source: MNB

Chart 5-7: Changes in the fiscal balance and government interest expenditures



Note: The time series of the ESA balance and the primary ESA balance after 2022 are point estimates, which are consistent with the midpoint of the ESA balance forecast bands.
Source: HCSO, MNB

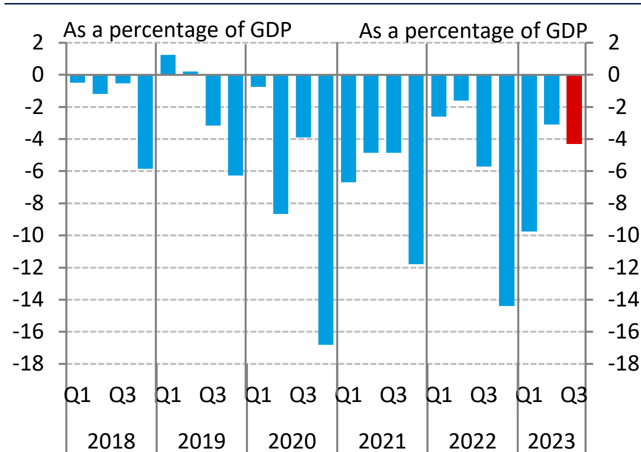
5.3.1 Main balance indicators

The accrual-based deficit of the general government is expected to be in the range of 5.2–6.0 percent in 2023 as a percentage of GDP and may amount to 2.9–3.9 percent in 2024, 1.9–2.9 percent in 2025, and 1.4–2.4 percent in 2026 (Table 5-2). In 2023, the deficit is expected to decline 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 sharp decline in global energy prices. As a result of the deceleration in consumption relative to our previous expectations in the high inflation environment, tax revenue growth will fall off significantly with a parallel surge in interest expenditures. The budget deficit may range between 5.2 and 6.0 percent of GDP in 2023, depending on macroeconomic developments and year-end fiscal control. In 2024, the deficit is expected to decrease further compared to previous years, but based on this year's macroeconomic and fiscal base, the deficit ratio is expected to range between 2.9 and 3.9 percent, and subsequently the risk may be 1 percentage point compared to the deficit targets both in 2025 and 2026 (Chart 5-7).

5.3.2 Budget balance in 2023

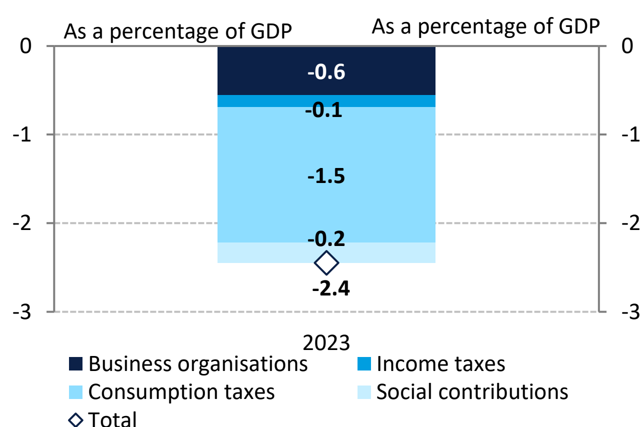
The budget deficit in 2023 is projected to be between 5.2 and 6.0 percent of GDP. The cash deficit had reached HUF 4,074 billion by the end of November, which translates to 120 percent of the appropriation and 92 percent of the HUF 4,450 billion cash deficit stated in the EDP report in early October. According to data released by the HCSO, the accrual-based deficit for the first half of the year was 6.3 percent of the six-month GDP figure, while data in the preliminary financial accounts published by the MNB show an accrual-based deficit of 4.3 percent of GDP for the third quarter (Chart 5-8). Based on our projections, the deficit target will be more difficult to achieve in 2023 due to lower-than-projected tax revenues (Chart 5-9) and higher interest

Chart 5-8: Accrual balance of the general government sector



Note: The 2023 Q3 data shows the net lending capacity of general government as reported in the preliminary financial accounts published by the MNB.
Source: HCSO, MNB

Chart 5-9: Deviation of tax and contribution revenues from the appropriation as a percentage of GDP in 2023



Source: Budget Act of 2023, MNB

expenditures in a less favourable macroeconomic environment.

Until November, tax revenues exceeded the values from the year earlier by about 16 percent on average, owing to nominal wage hikes, the impact of the PIT refund on 2022 revenues and extra-profit taxes. At the same time, high inflation resulted in lower consumption and retail sales, leading to a year-on-year decline in gross VAT revenues in the first two months of the fourth quarter.

The year-on-year decline in the budget deficit is supported by lower government investment; at the same time, however, it is hampered by a rise in government interest expenditures in the high inflation environment. In 2023, interest expenditures may rise by 1.5 percentage points to 4.3 percent from 2.8 percent in the previous year, driven, for the most part, by an increase in interest payments on inflation-linked government bonds.

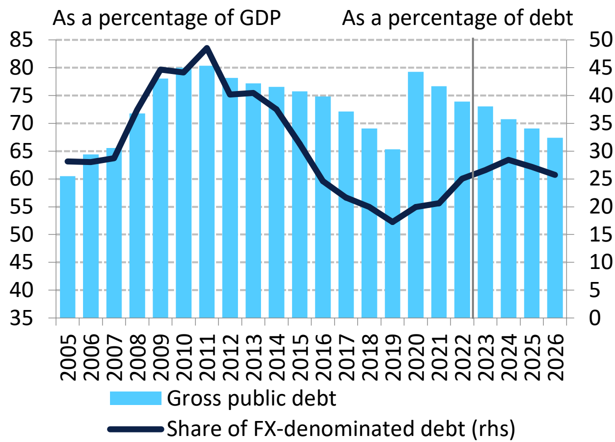
5.3.3 Balances in 2024–2026

Based on our forecast, in 2024 the budget deficit will amount to 2.9–3.9 percent of GDP. The decline in the deficit relative to 2023 is primarily supported by the sharp fall in energy prices, the revenue and expenditure measures announced in the spring and autumn of 2023 and cuts in public investment, but it is hampered by high government interest expenditures; consequently, the deficit target may only be achieved with tight expenditure control.

In 2024, many of the taxes imposed on extra profit in 2022 and 2023 will be maintained in full, and several tax types will be maintained in part. Tax revenues will be boosted further by the increase in excise duties on fuels in line with the EU minimum level, and by the social contribution tax imposed on interest incomes. Since the implementation of the Budget Act, a new tax type has been introduced for the years 2023 and 2024: the carbon dioxide quota tax. In addition, a global minimum tax will be introduced from 2024, a measure intended to increase the effective tax rate of international corporations to 15 percent. However, this tax type is not expected to yield substantial additional revenues until 2026 as, in view of the increasing administrative burden, companies will be given an 18-month grace period before the *de facto* introduction of the tax.

Expenditure measures will also contribute to the deficit reduction as the rules for applying for the Home Purchase Subsidy Scheme for Families (HPS) are being tightened. The currently available HPS subsidy in cities will be phased out

Chart 5-10: Gross public debt forecast



Note: The time series of the gross public debt and the share of FX-denominated debt after 2022 are point estimates, which are consistent with the midpoint of the ESA balance forecast bands.
Source: MNB, ÁKK

and replaced by the HPS Plus subsidy, with a potential ESA-balance impact of around HUF 50 billion in 2023 and 2024.

In the absence of a budget law, we forecast a further decline in the deficit path for 2025 and 2026.

5.3.4 Risks surrounding the baseline scenario

The evolution in tax revenues is significantly affected by macroeconomic developments, while the current level of energy prices carries positive risks to the appropriations. On the revenue side, the evolution of the budget balance is surrounded by risks owing to decelerating revenue growth from consumption taxes, which constitute the base for the following year and therefore also pose a risk to the achievement of the deficit targets for 2024–2026. At the currently expected energy prices, maintaining the cuts in utility costs remains a significant budgetary expenditure. At the same time, since the global energy prices considered for the purposes of budgetary planning were higher than the currently foreseeable market prices, there are positive risks to the appropriations at the current prices. Budgetary expenditures need to be closely controlled in order to counter the risks.

The uncertainty surrounding the absorption of EU funds has been mitigated by the fact that the European Commission has accepted the fulfilment of the horizontal enabling conditions related to the judicial reform, and thus drawdown of 2021-2027 cohesion funds in the amount of EUR 10.2 billion can begin. Prior to this, after the European Commission and ECOFIN both approved the REPowerEU chapter of the Hungarian Recovery and Resilience Plan, Hungary can receive an RRF pre-financing of EUR 920 million in 2024. Access to the still unavailable recovery and cohesion funds (around EUR 21 billion) requires the full implementation of 27 super milestones set by the Commission. The advance payments and the absorption of funds affects the level of government debt, while the timing of their implementation affects the accrual balance and real economic developments.

5.3.5 Expected developments in public debt

According to data presented in the preliminary financial accounts of the MNB, the gross public debt-to-GDP ratio reached 75 percent at the end of 2023 Q3. The debt ratio decreased by 0.5 percentage point compared to the same period of the previous year, while it rose by 1.1 percentage points compared to the value recorded at the end of 2022. The rise in government debt was driven by high net issuance until the end of the third quarter. As a result of the issuance of foreign currency bonds, at the end of 2023 Q3 the foreign currency ratio of central government debt rose to

27.1 percent from 25 percent at the end of the previous year. We expect the foreign currency ratio of central government debt to be around 27 percent in 2023, which may rise even further in the coming year due to significant foreign currency issuance, before embarking on a downward path once again from 2025.

According to our projections, the gross public debt-to-GDP ratio will drop to the vicinity of 73 percent by the end of 2023, which will be followed by an additional steady decline in the debt ratio. The public debt ratio may decline by almost 2 percentage points per year on average over the forecast horizon, reaching 67 percent by the end of 2026 (Chart 5-10).

The exact level of the debt ratio at the end of the year will largely depend on the level of nominal GDP, additional government debt issuance by the end of the year and changes in the EUR/HUF exchange rate. A HUF 10 change in the EUR/HUF exchange rate alters the public debt-to-GDP ratio by approximately 0.5 percentage point.

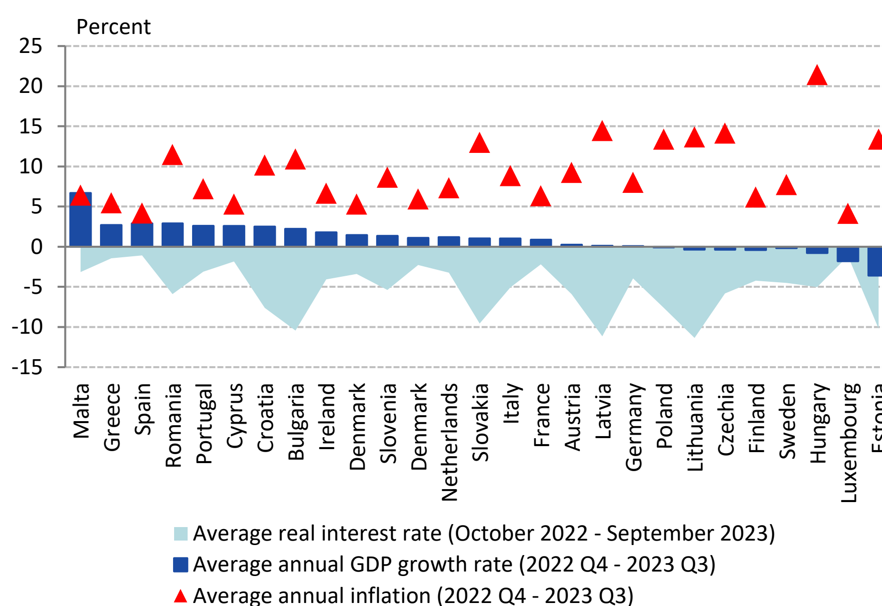
6 Special topics

6.1 Impact of real interest rates on consumption and investment

The real interest rate essentially measures the change in the purchasing power of savings placed in bank deposits or other interest-bearing instruments. The simplest way to express the indicator is as the difference between the current interest rate – for instance, the central bank base rate or the interest rate on bank deposits – and inflation. If the real interest rate is negative, the price increase is higher than the current interest rate, which means that savings lose value. A negative real interest rate, therefore, means a relatively high price increase and, thus, a decline in the value of our money.

However, in a high inflation environment, negative real interest rates cannot be used to gain a growth advantage. High inflation reduces the real value of wages, thereby suppressing domestic demand and decelerating or even reducing economic output. This is also supported by our observations, as the region – including Hungary – has experienced a deeply negative real interest rate environment in recent years, but has also experienced the most severe economic downturn. Looking at the example of EU countries, it can be seen that the negative real rate put countries with high inflation at a growth disadvantage (Chart 6-1).

Chart 6-1: Changes in average annual GDP growth and average real backward-looking real interest rates in EU countries

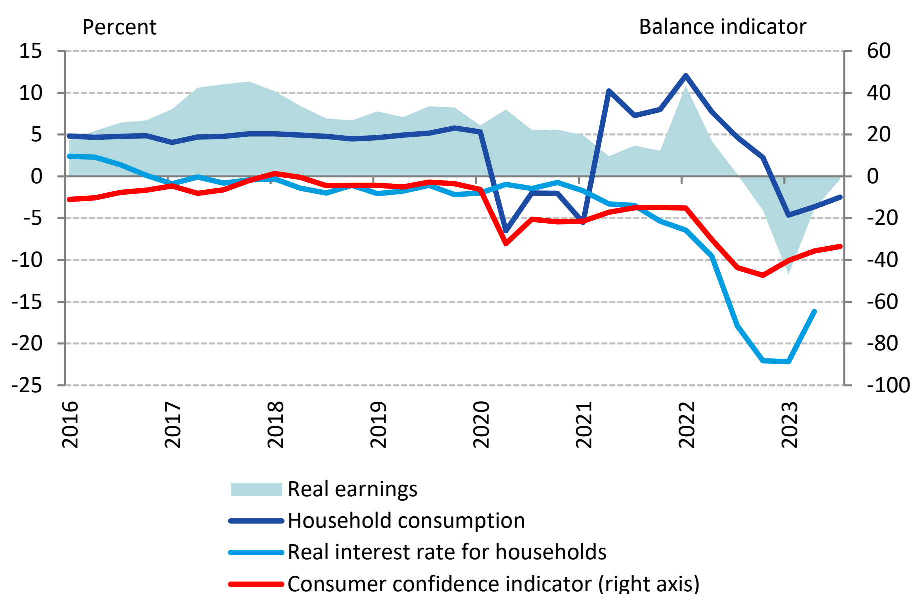


Note: GDP based on seasonally and calendar adjusted data. The real interest rate was calculated on the basis of prevailing interest rates and monthly inflation data in the given country. Based on HICP data on inflation.
Source: MNB, Eurostat

In Hungary, the decline in consumption was significantly more impacted by the fall in real wages due to high inflation and by the increased public mistrust than by negative real interest rates.

Household consumption fell substantially in Hungary, despite the fact that Hungarian families faced negative real interest rates (Chart 6-2). Cash holdings of HUF 6,000–6,500 billion depreciated in real terms at the same rate as inflation, but in addition, the interest rate on bank deposits of about HUF 10,000 billion also failed to keep up with the rate of price increase, and even the Hungarian Government Security Plus (MÁP+) – which still amounts to thousands of billions of forints – provided a deeply negative real interest rate of minus 10–20 percent (depending on the time period examined).

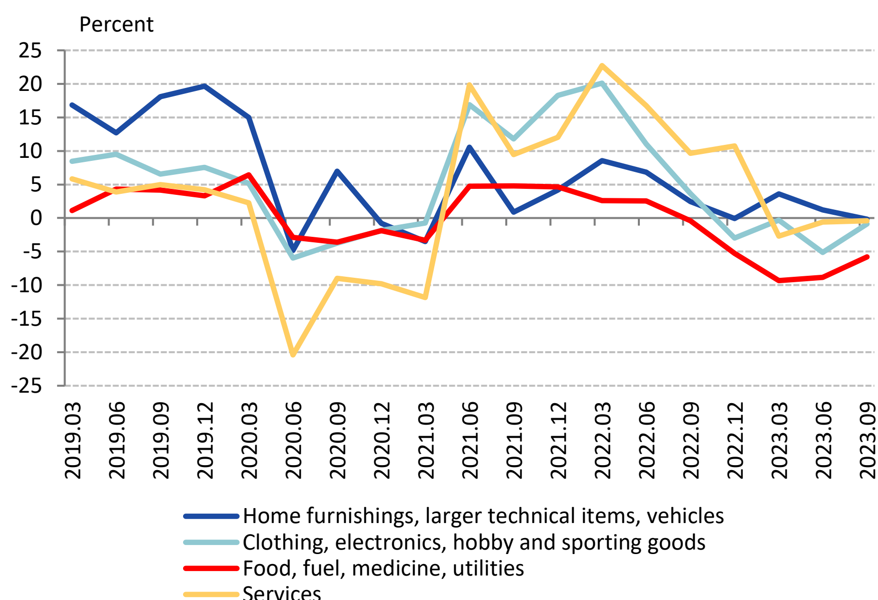
Chart 6-2: Annual changes in real wages in the national economy and household consumption expenditure, and the real interest rate on household savings in Hungary



Note: Based on quarterly, seasonally and calendar-adjusted data. The real interest rate for households was calculated on the basis of the stock of HUF cash, deposits and debt securities and interest paid, using the consumer price index.
Source: HCSO, MNB

Wages depreciating due to high price increases reduced consumption. In 2023 Q1-Q3, the consumer price index rose by 20.9 percent, and as a result real wages fell by 5.4 percent year-on-year. Consequently, household disposable income declined by 1.1 percent in real terms, resulting in a 3.5 percent fall in consumption compared to the same period of the previous year. The pattern of the decline also confirms that the contraction in consumption was not due to real interest rates. The volume of purchases of home furnishings, technical goods and vehicles, which were largely purchased with credit, actually increased slightly. By contrast, demand for goods bought on a day-to-day basis from regular wages (foodstuffs, fuel, health products, home maintenance) fell the most, dropping by 7.8 percent in 2023 Q1-Q3. This is in line with the fact that the inflation of the former product group during the same period was 9.8 percent, while that of the latter, daily consumption products, was 26.8 percent (Chart 6-3).

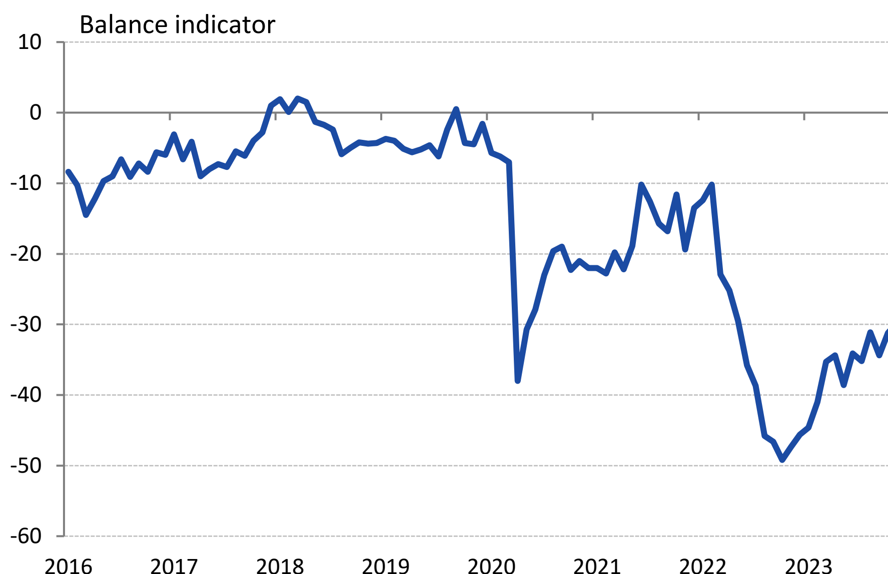
Chart 6-3: Annual change in household consumption expenditure by use in Hungary



Source: HCSO, MNB

Household confidence fell sharply last year and remains at a low level (Chart 6-4). When household confidence in the economic processes declines, households tend to wait and see, and postpone major spending, ultimately leading to lower consumption.

Chart 6-4: Development of the ESI consumer confidence index

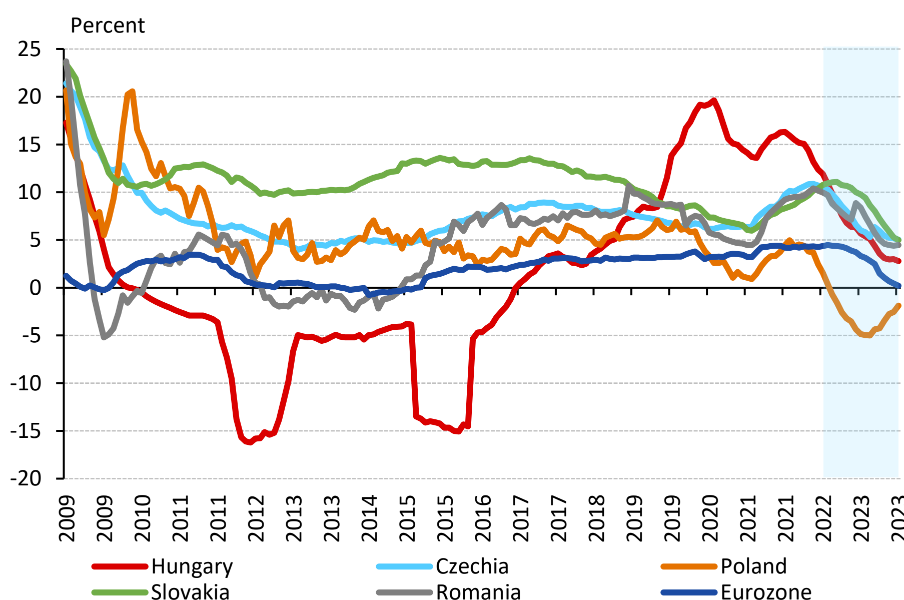


Note: Based on seasonally-adjusted data.
Source: European Commission

As long as consumption is falling, investment will not take off even with negative interest rates.

There was no increase in household lending in 2023 with negative real interest rates (Chart 6-5). Although borrowers have been able to take out housing loans on a market basis at double-digit negative real interest rates since 2022 Q4, the housing loan market has declined significantly, in line with regional trends. Demand has declined for both the Home Purchase Subsidy Scheme for Families (CSOK) and interest-free prenatal loans, which still have low interest rates in nominal terms, despite the fact that these loans have been subject to deeply negative real interest rates of between –20 and –25 percent in some months in the short term.

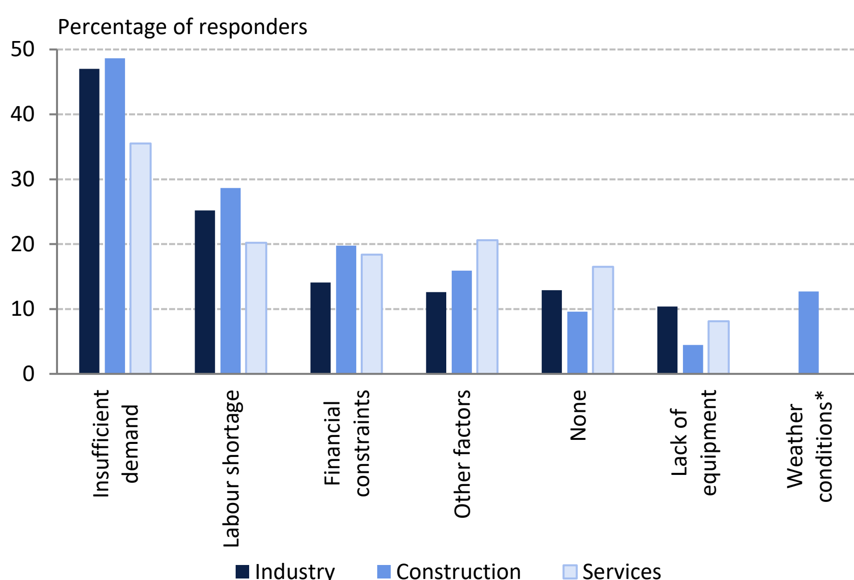
Chart 6-5: Annual transaction growth rate of household lending



Source: ECB, MNB

At present, demand for investment loans is low, in spite of the subsidised lending programmes, and it would be the emergence of internal demand that would stimulate corporate lending. The Baross Gábor Reindustrialisation Loan Programme offered a 6 percent interest rate in HUF to companies that were able to access the programme in the very short time available. This also implies a double-digit negative real interest rate for 2023 as a whole, but the demand for investment loans was low and, as such, a large part of the programme (76 percent) ended up financing working capital loans. The current constraint on investment is, therefore, not a lack of favourable funding, but the absence of demand (Chart 6-6), the main reason for which was high inflation. Another indication of this is that companies are holding a huge portfolio of liquid assets, amounting to 30 percent of GDP.

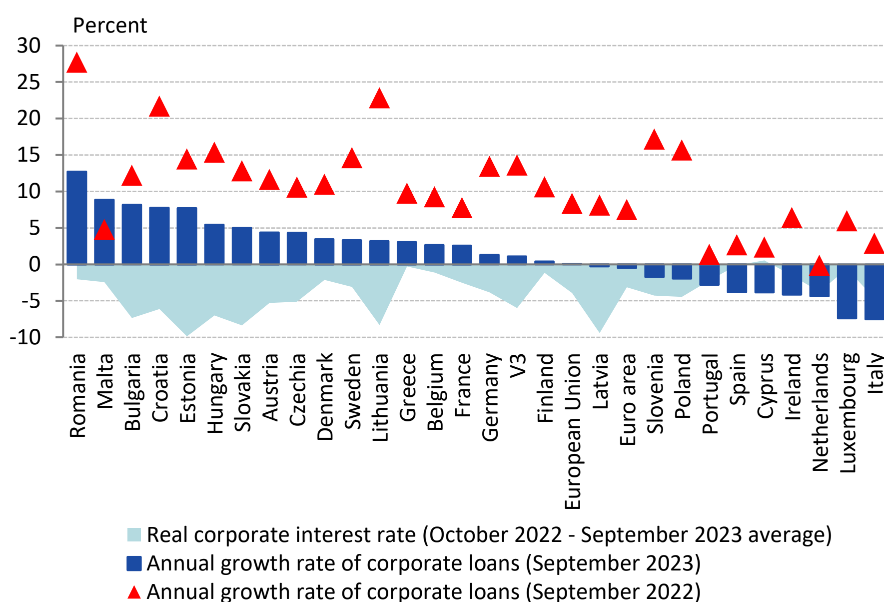
Chart 6-6: Factors hampering production in the various sectors



Note: Data for 2023 Q4. Average price for September-November for the construction industry.
*Weather conditions for the construction industry only.
Source: European Commission, MNB

The decelerating credit market is not at all unique to Hungary. The pace of corporate credit growth is slowing in almost all EU countries, while the average real interest rate faced by companies has been negative in all countries, except for Cyprus (+0.5 percent) over the past year (Chart 6-7). In its lending survey, the European Central Bank reported a sharp and unprecedented fall in demand for corporate loans, mainly in investment loans, regardless of negative real interest rates.

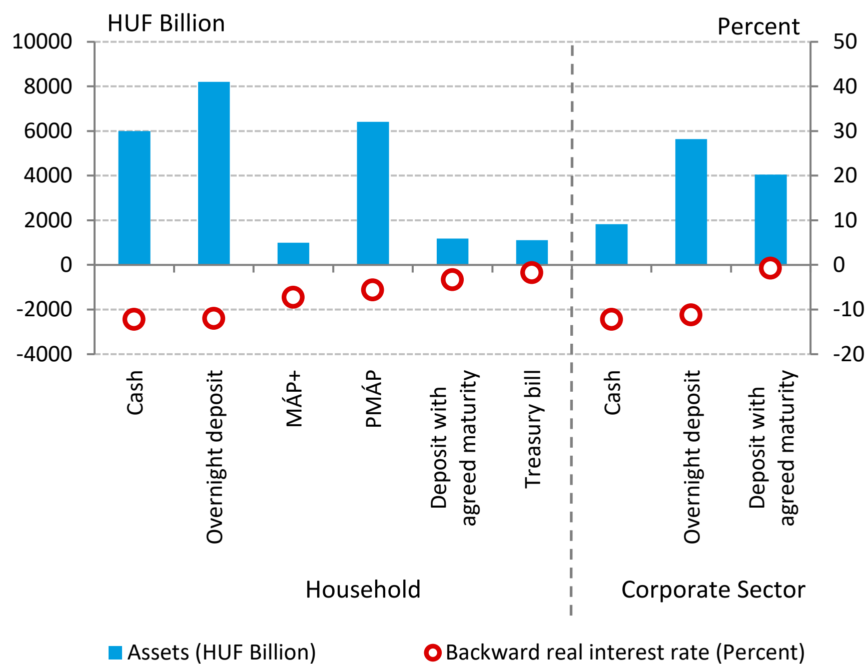
Chart 6-7: Annual change in corporate loan growth and the evolution of the real corporate loan interest rate in EU countries



Note: The real interest rate was calculated on the basis of the average monthly interest rate on new corporate loans and monthly inflation data for the months for which interest rate data were available. The corporate lending rates include the average transaction rate weighted by the contractual amount for newly contracted corporate loans, which in the case of subsidised loans is the interest rate plus the subsidy.
Source: ECB, MNB, Eurostat

Based on the above, bringing inflation down is a prerequisite for a rebound in domestic consumption and investment. As shown above, real incomes have a stronger impact on consumption than real interest rates. In addition, the real interest rate on financial assets available to households was deeply negative in the past period (Chart 6-8), meaning it cannot hold consumption back. Real wage growth cannot be sustained by a sudden, faster-than-equilibrium rise in nominal wages, as this may lead to persistently high inflation and slower economic growth overall. Only inflation falling in a sufficiently tight interest rate environment can bring about a sustainable rise in real wages. This may lead to a sustained upturn in consumption, which might be accompanied by a positive growth path for investments.

Chart 6-8: Real yields and stock of the various financial assets of households and non-financial corporations



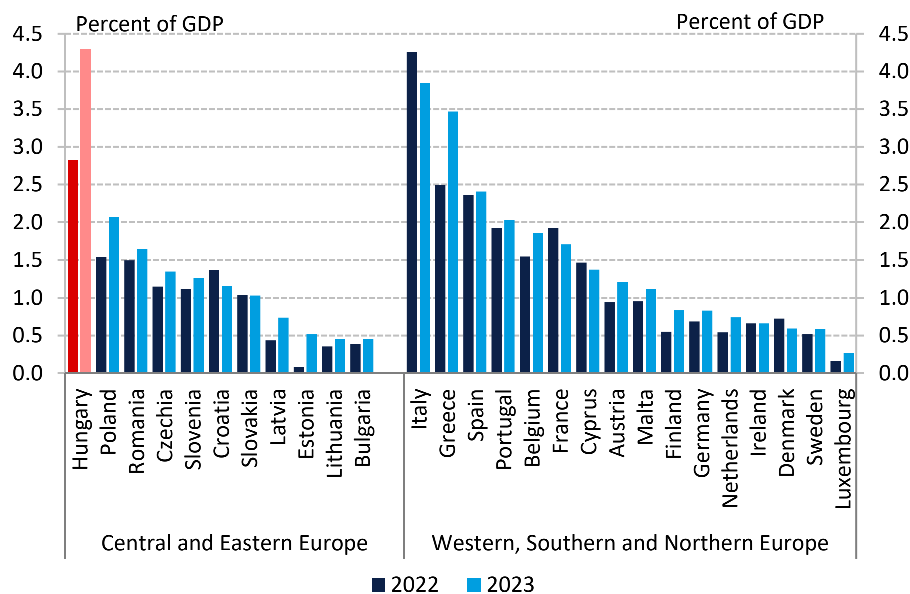
Note: Stocks at the end of September 2023. Backward real interest rate = return available in September 2022 - annual inflation in September 2023.*The repeated depositing of short-term deposits maturing within a month increases the amount of the new contract of the fixed-term deposits in a given month and, thus, affects the average interest rate on new contracts. As a consequence, large amount deposits – even repeated – by certain priority customers increase the average interest rate.
Source: MNB

6.2 Factors determining the rise in government interest expenditure

Rising interest expenditure is a significant burden on the budget

Government interest expenditure may rise by around HUF 1,400 billion to 4.3 percent of GDP in 2023, the highest in the EU, mainly due to the high inflation. In 2022, interest expenditure as a share of GDP was 2.8 percent in Hungary, the second highest in the EU and the highest in the Central and Eastern European region. This year, interest expenditure in Hungary may reach 4.3 percent of GDP (Chart 6-9), the highest in the EU, even ahead of Italy.

Chart 6-9: Gross public interest expenditure as a share of GDP in EU Member States



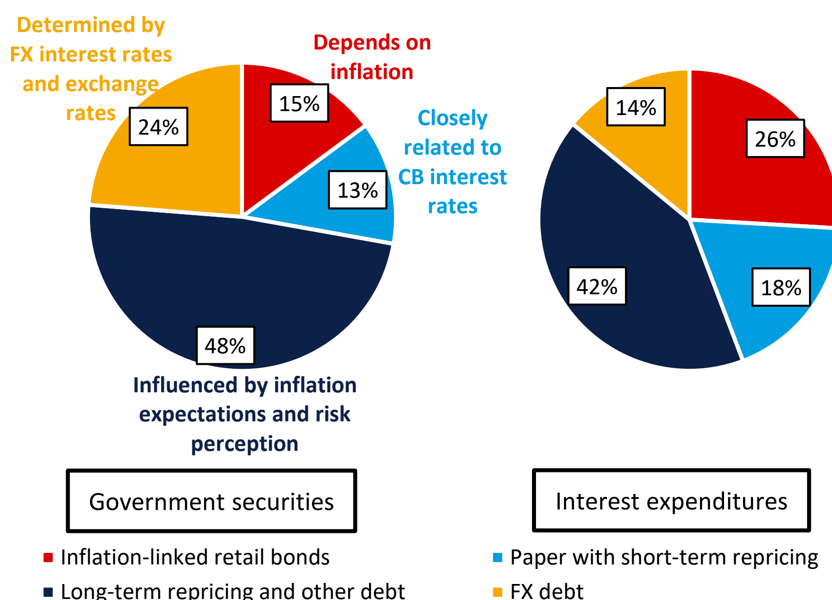
Source: AMECO, MNB

Inflation boosts interest expenditure growth, while central bank measures curb it

In terms of structure, the cost of public debt is determined by a combination of several factors, including inflation, inflation expectations, country risk perceptions, exchange rate trends and yields in domestic and international government securities markets. The structure of public debt is complex, comprised of several types of liabilities and mainly debt instruments, government securities, which may have different interest rates, maturities and denominations. By looking at the structure of debt, we can also estimate how much of interest expenditure is affected by the various factors.

Discount treasury bills (DTBs) and floating-rate bonds with short-term repricing, which account for a smaller share of government securities at only 13 percent, have interest rates that are more closely linked to central bank interest rates. In contrast to this, inflation directly determines the interest rate on inflation-linked household bonds, which represent 15 percent of the total stock of government securities. In addition, the interest rate on long-term and fixed-rate securities, which account for almost half of government securities (48 percent), is determined by the developed market interest rate environment, inflation expectations and country risk perceptions, while the interest rate on foreign currency bonds, which account for 24 percent of government securities, is determined by the external interest rate environment and risk perceptions (Chart 6-10).

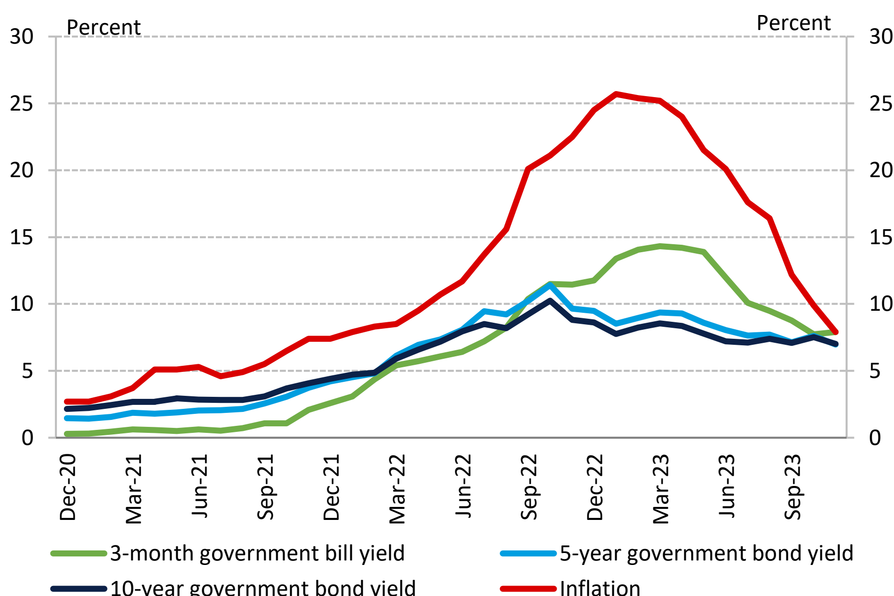
Chart 6-10: Expected change of the distribution of government securities and government interest expenditure in 2023



Note: Government securities account for nearly 90 percent of total public debt.
Foreign currency debt accounts for 28 percent of total public debt.
Source: Government Debt Management Agency (ÁKK), MNB

Among the factors impacting government interest expenditure, inflation has risen the most (Chart 6-11). Yields on medium- and long-term HUF government securities averaged 7–9 percent per annum in 2022, while the average annual yield on short-term government securities was 7–8 percent. In 2023, long-term yields averaged between 7–10 percent, while short-term yields around 11–12 percent. Inflation increased to an annual average of 14.5 percent last year, rising above 20 percent in the first half of 2023 and then decreasing to 7.9 percent by November.

Chart 6-11: Development of inflation and benchmark government bond yields



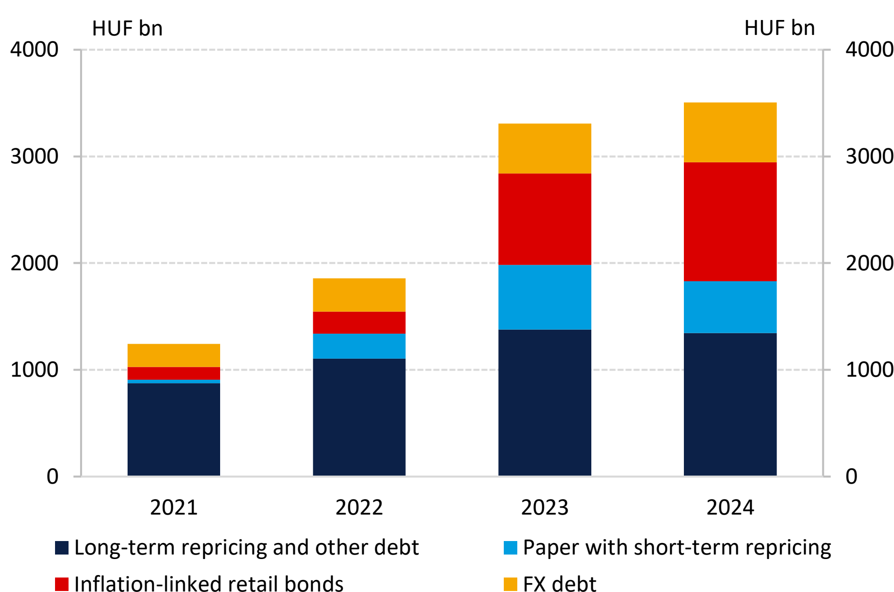
Source: Government Debt Management Agency (ÁKK), HCSO

Almost half of the increase in government interest expenditure is caused by the high inflation and the increase in the stock of inflation-linked government securities (Chart 6-12). Inflation plays a significant role in the increase in interest expenditure: the high inflation and the rise in the stock of inflation-linked government securities caused accrual-based interest expenditure on inflation-indexed government securities to rise by HUF 660 billion between 2022 and 2023 to nearly HUF 860 billion, which represents almost half of the increase in total government interest expenditure this year. In 2024,

interest expenditure on these securities may reach HUF 1,120 billion. The increase in expenditure is also boosted by higher demand for inflation-linked household securities on account of high inflation, with the stock of Premium Hungarian Government Bonds and Baby Bonds rising from HUF 4,500 billion at the end of 2022 to close to HUF 7,000 billion by mid-November 2023. The impact of inflation on interest expenditure is shown by the fact that for these securities, a 1-percentage point decline in inflation means a HUF 70 billion reduction in interest expenditure per year.

Interest expenditure on government securities with short-term repricing may increase by just over half of the increase in interest expenditure due to inflation, by HUF 370 billion this year, while interest expenditure on these securities may even decline next year (Chart 6-12). Interest expenditure on government securities with long-term repricing will increase by around HUF 270 billion, while foreign currency interest expenditure will rise by HUF 150 billion compared to last year. By 2024, we expect the interest expenditure on securities with short-term repricing to fall significantly, by HUF 120 billion. Interest expenditure on securities with long-term repricing will drop by HUF 40 billion, while foreign currency interest expenditure will rise by HUF 100 billion.

Chart 6-12: **Breakdown of changes in government interest expenditure**



Source: Government Debt Management Agency (ÁKK), MNB

Anchoring inflation expectations indirectly lowers long-term yields and helps to stabilise financial markets, thus reducing interest expenditures on HUF bonds, which represent a large part of the debt. A good example for this is that after the extraordinary 500-basis point rate hike in October 2022, the rapid rise in long-term yields halted, and in the following month, the 5-year government security yield fell by 330 basis points and the 10-year by 235 basis points (Chart 6-12). **Following the interest rate hike, the government's cost of financing decreased, as funding became cheaper on one of the most important financing markets.**

In addition to interest expenditures, government interest revenues are also increasing, partly offsetting the rise in gross interest payments, meaning that net interest expenditure may amount to 3.6 percent of GDP in 2023. One of the main sources of interest revenues is the interest paid by the MNB on the state's deposits with the central bank, which, according to the 2023 Budget Act, may exceed HUF 170 billion this year, or 0.2 percent of GDP. Therefore, in line with international practice, the level of the central bank interest rate paid on liquid government deposits reduces the increase in net government interest expenditure.

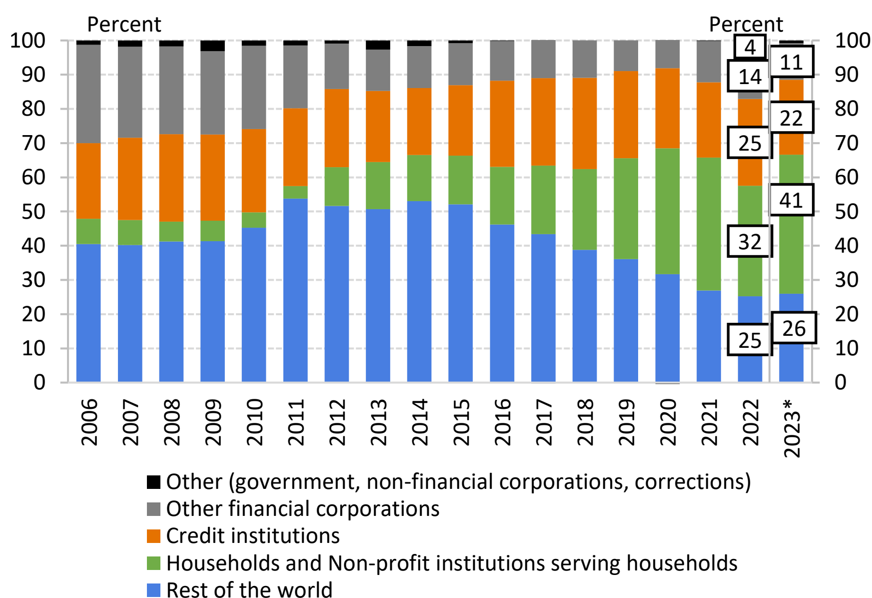
Around three quarters of public interest payments remain with residents

A significant part of the higher interest expenditure of the state is channelled domestically, in particular to households. In recent years, one of the key objectives of the public debt management strategy has been to strengthen domestic financing. The share of residents in public interest payments has gradually increased in line with the share of domestic

ownership in public debt since 2011. While about one third of the debt was previously in domestic hands, by the end of 2022 this share had risen to nearly two thirds. Within this, the household ownership share last year reached nearly 16 percent of GDP and exceeded 21 percent of total debt, the highest in the EU. Last year, households received almost one third of all public interest expenditure (0.9 percent of GDP), with credit institutions receiving one quarter (0.7 percent of GDP), and other financial companies (insurance companies, funds, central bank) receiving 14 percent (0.4 percent of GDP). The share of non-residents in total government interest expenditure was only one quarter (0.7 percent of GDP) (Chart 6-13).

In 2023, within interest expenditures, interest payments to households will increase the most, with households' share rising from 32 percent (0.9 percent of GDP) in 2022 to 41 percent (1.7 percent of GDP) in 2023 (Chart 6-13). In connection with the above, this is a consequence of the rising stock of retail government securities, while a considerable part of their interest expenditure is linked to inflation. We forecast that interest paid to credit institutions and other financial companies may decline, while the share of interest paid to the rest of the world may increase moderately, as a result of the large amount of foreign currency debt issuance this year.

Chart 6-13: Breakdown of government interest expenditure by sector as a share of total interest expenditure



Note: *2023 MNB forecast

Source: MNB

Overall, due to the high inflation, government interest expenditure may increase to 4.3 percent of GDP in 2023, the highest in the EU. More than half of the increase in government interest expenditure is linked to inflation-linked securities, while inflation increases the burden on the budget through several other channels. The interest rate on only 13 percent of government securities is more closely linked to central bank interest rates, while monetary policy measures reduce the rise in the interest burden on the budget by affecting a large part of public debt over several years, owing to the reduction in inflation expectations and the stabilisation of the market. Government interest expenditures would therefore have risen even higher without the actions of the MNB. The increase in interest expenditure is partly offset by an increase in government interest revenues, one of the main sources of which is the interest paid by the MNB on government deposits. Due to the high share of retail government securities, the negative impact of higher government interest expenditure is partly offset by the fact that a large part of it remains with residents.

List of charts and tables

List of charts

Chart 1-1: Monthly evolution of the near-term inflation forecast 12
Chart 1-2: Fan chart of the inflation forecast 12
Chart 1-3: Decomposition of our inflation forecast........ 13
Chart 1-4: Fan chart of the GDP forecast 17
Chart 1-5: Expenditure side decomposition and forecast of GDP 17
Chart 1-6: Annual change in consumption and disposable income items in real terms 18
Chart 1-7: Evolution of households' consumption, investment and financial savings rates as a percentage of disposable income 18
Chart 1-8: Forecast for lending to households 19
Chart 1-9: Annual changes in lending to non-financial corporations and SMEs........ 20
Chart 1-10: Changes in export market share 21
Chart 1-11: Trends in household consumption, real average earnings and the consumer price index 22
Chart 1-12: Food price level trends in the European Union countries 23
Chart 1-13: Household sector financial wealth and average wages in the national economy in real terms 23
Chart 1-14: Changes in the net financial savings of households 24
Chart 1-15: Employment expectations in the ESI business survey 25
Chart 1-16: Change in the unemployment rate........ 25
Chart 1-17: Annual change in the working age population and the number of persons employed in the private sector 26
Chart 1-18: Annual changes in gross average wages and average labour cost in the private sector........ 26
Chart 2-1: Risk map: effect of alternative scenarios on the baseline forecast 29
Chart 3-1: GDP growth in the world's leading economies........ 34
Chart 3-2: Development of global industrial production and global trade 35
Chart 3-3: Commodity prices........ 35
Chart 3-4: Inflation targets of central banks and actual inflation 36
Chart 3-5: Central bank balance sheet totals in developed countries 36
Chart 3-6: Inflation and core inflation in the region........ 37
Chart 3-7: US and German 10-year government bond yields 38
Chart 3-8: Annual GDP change in EU countries in 2023 Q3........ 39
Chart 3-9: Annual change in decomposition of expenditure-side GDP 39
Chart 3-10: Annual change in decomposition of production-side GDP........ 40
Chart 3-11: Annual change in retail sales and online cash register sales in real terms........ 41
Chart 3-12: Number of housing market transactions by settlement type 41
Chart 3-13: Decomposition of the annual change in investments 42
Chart 3-14: Annual change in lending to non-financial corporates and SMEs 42
Chart 3-15: Sectoral breakdown of annual change in domestic industrial production........ 43
Chart 3-16: Evolution of construction output 43
Chart 3-17: Trends in gross domestic product compared to pre-pandemic levels 44
Chart 3-18: Gross fixed capital formation compared to pre-pandemic levels 45
Chart 3-19: Annual change in the investment performance of each sector of the national economy 46
Chart 3-20: Evolution of household consumption expenditure compared to pre-pandemic levels 47
Chart 3-21: Evolution of exports compared to pre-pandemic levels 47
Chart 3-22: Decomposition of annual changes in whole-economy employment 48
Chart 3-23: Decomposition of annual changes in private sector employment........ 48
Chart 3-24: Indicators capturing the short-term evolution of unemployment 49
Chart 3-25: Annual change in gross average wages in the private sector........ 49

Chart 3-26: Distribution of average earnings in Hungary – 2022 50
Chart 3-27: Increase in the minimum wage and the guaranteed minimum wage in real terms 51
Chart 3-28: Capacity utilisation and production expectations in manufacturing 52
Chart 3-29: Development of world market prices of food 53
Chart 3-30: Development of agricultural prices 53
Chart 3-31: Monthly price changes of consumer prices excluding fuel and regulated prices 54
Chart 3-32: Decomposition of inflation 54
Chart 3-33: Underlying inflation indicators 54
Chart 3-34: Inflation of industrial goods 55
Chart 3-35: Monthly price changes of traded goods 55
Chart 3-36: Monthly price change of market services 55
Chart 3-37: Inflation expectations in the region 56
Chart 3-38: Decomposition of Hungary's price increase surplus compared to the Visegrád countries relative to June 2021 56
Chart 3-39: Decomposition of the decline in inflation since January 2023 57
Chart 3-40: Inflation trends for processed and unprocessed food 57
Chart 3-41: Food inflation in European Union Member States (October 2023) 58
Chart 3-42: Food industry labour productivity (2021) 58
Chart 4-1: Components of the 5-year Hungarian CDS spread 59
Chart 4-2: Exchange rates in the region 59
Chart 4-3: HUF-denominated government securities held by non-residents 60
Chart 4-4: Yields of benchmark government securities 60
Chart 4-5: 10-year government benchmark yields in CEE countries 60
Chart 4-6: Composition of the liquid assets of non-financial corporations as a percentage of GDP 61
Chart 4-7: Liquid assets of non-financial corporations as a percentage of GDP in the EU 62
Chart 4-8: Interest rates on new corporate loans 63
Chart 4-9: Changes in credit conditions in corporate sub-segments 63
Chart 4-10: Annual percentage rate of charge on new household loans 64
Chart 4-11: Changes in credit conditions in the household sector 64
Chart 5-1: Changes in net lending and its components 65
Chart 5-2: Structure of net lending 65
Chart 5-3: Decomposition of net lending by sectors 66
Chart 5-4: Development of net external debt by sectors 66
Chart 5-5: Evolution of net lending 67
Chart 5-6: Changes in the savings of sectors 68
Chart 5-7: Changes in the fiscal balance and government interest expenditures 69
Chart 5-8: Accrual balance of the general government sector 70
Chart 5-9: Deviation of tax and contribution revenues from the appropriation as a percentage of GDP in 2023 70
Chart 5-10: Gross public debt forecast 71
Chart 6-1: Changes in average annual GDP growth and average real backward-looking real interest rates in EU countries 73
Chart 6-2: Annual changes in real wages in the national economy and household consumption expenditure, and the real interest rate on household savings in Hungary 74
Chart 6-3: Annual change in household consumption expenditure by use in Hungary 74
Chart 6-4: Development of the ESI consumer confidence index 75
Chart 6-5: Annual transaction growth rate of household lending 75
Chart 6-6: Factors hampering production in the various sectors 76
Chart 6-7: Annual change in corporate loan growth and the evolution of the real corporate loan interest rate in EU countries 77
Chart 6-8: Real yields and stock of the various financial assets of households and non-financial corporations 78
Chart 6-9: Gross public interest expenditure as a share of GDP in EU Member States 79
Chart 6-10: Expected change of the distribution of government securities and government interest expenditure in 2023 80

Chart 6-11: Development of inflation and benchmark government bond yields....80
Chart 6-12: Breakdown of changes in government interest expenditure....81
Chart 6-13: Breakdown of government interest expenditure by sector as a share of total interest expenditure....82

List of tables

Table 1-1: Details of the inflation forecast....13
Table 1-2: Main external assumptions of our forecast....14
Table 1-3: Inflationary effect of the new waste tax and regulatory measures in 2024....16
Table 1-4: Estimated impact of the HPS Plus scheme on the lending market between 2024 and 2026....19
Table 1-5: Evolution of gross fixed capital formation and the investment rate....19
Table 1-6: Changes in projections compared to the previous Inflation Report....27
Table 1-7: MNB baseline forecast compared to other forecasts....28
Table 5-1: Development of the trade balance as a percentage of GDP....67
Table 5-2: General government balance indicators....69

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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