INFLATION REPORT

2021
SEPTEMBER

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

Miklós Zrínyi: The Life of Matthias Corvinus

INFLATION REPORT

2021

SEPTEMBER

Published by the Magyar Nemzeti Bank

Publisher in charge: Eszter Hergár

H-1054 Budapest, Szabadság tér 9.

www.mnb.hu

ISSN 2064-8723 (print)

ISSN 2064-8774 (on-line)

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

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

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

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

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 16 September 2021. With regard to the balance of payments data, the figures for the second quarter published on 20 September were also included in the analysis.

Contents

List of boxes

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.

The world's economies grew strongly in the second quarter of 2021; however, economic performance in several countries remains below pre-crisis levels. Overall, inflation has risen further worldwide in recent months. Where the reopening took place earlier an increase in consumer prices occurred faster as well.

Based on GDP data for the second quarter of 2021, the economic performance of the US and China exceeded its levels a year earlier by 12.2 percent and 7.9 percent, respectively, leaving US and Chinese GDP 0.8 percent and 8.2 percent above the values recorded at the end of 2019. In contrast, the economic performance of the European Union falls short of pre-crisis levels. Among the countries in the CEE region, the economic performance of Poland and Romania rose slightly above their levels seen before the crisis; however, the Czech Republic still lags behind. Nevertheless, the fourth wave of the coronavirus pandemic led to a renewed increase in risks surrounding the economic recovery.

Inflation generally rose in the past quarter, primarily driven by the reopening of economies. The supply side of economies recovered more slowly, which, coupled with strong demand growth worldwide, led to significant increases in commodity prices and freight costs. Where the reopening took place earlier consumer prices increased faster. As a result of this sustained rise, the consumer price index fluctuated above the central bank target in several countries. In the US, inflation increased to over 5 percent in the summer months, and in the euro area it rose to 3 percent, the highest level in the past decade. Similar trends occurred in the CEE region. The consumer price index stands above the upper bound of the central bank tolerance band in Romania (at 5.25 percent) Poland (at 5.5 percent) and the Czech Republic (at 4.1 percent).

Several central banks have recently started to tighten monetary conditions; however, the world's leading central banks have maintained loose monetary conditions and continued their asset purchase programmes.

The Federal Reserve (Fed) kept the target band of its policy rate unchanged, leaving it at 0–0.25 percent. Government securities and mortgage-backed securities purchases continued at the pace seen recently; however, based on communication by some decision-makers, the possibility of modifying crisis management programmes is approaching. The Fed's decision-makers are of the view that inflationary pressures are likely to subside as temporary factors wear off; however, some pointed out that more sustained disruptions in the supply chain than expected suggest that strong price growth might persist. The European Central Bank's (ECB) Governing Council left its key interest rates unchanged, but announced that purchases made under the Pandemic Emergency Purchase Programme (PEPP) would continue at a slower pace than in the previous two quarters. The ECB released the results of the review of its monetary policy strategy at the beginning of July, in which it set a symmetric 2 percent inflation target. In addition, the ECB also accepted an action plan to tackle climate change, as part of which the ECB will take an overview to better account for climate change considerations in its monetary policy framework in the future. Several developed-country central banks have recently started to phase out their asset purchase programmes.

In the region, the Czech central bank raised its policy rate by 25-25 basis points to 0.75 percent in June and August, consistent with its earlier forward guidance. The central banks of Poland and Romania left policy rates unchanged.

Sentiment in financial and capital markets deteriorated slightly in the first half of the previous quarter, due to the spread of the Delta variant of coronavirus and the related restrictions. However, the second half of the quarter saw an improvement on account of incoming macroeconomic data and the still supportive monetary policy of the US.

In parallel with an increase in risk aversion, yields in developed markets fell in the first half of the previous quarter. By contrast, European yields reversed slightly in the second half following a decline earlier in the period, due to the improvement in sentiment in financial markets and an increase in inflation risks. Overall, yields on long-term government securities fell in developed markets, while commodity prices increased further in the period. After a sharp decline in the first half of the period, oil prices started to rise again. Risk indicators rose slightly amid volatile financial market sentiment, and market volatility declined moderately compared to its June level.

Hungary passed the first peak in June, but another spike is expected in inflation in the autumn.

With the restart of the economy, the consumer price index fluctuated above 5 percent in the second quarter before declining slightly in the summer months. The effect of a global pick-up in commodity prices is causing inflation to accelerate in an increasingly wide range of industrial goods. In the summer, the significant monthly rise in market services stopped, suggesting that the vast majority of repricings related to the reopening may have already materialised. Inflation is expected to rise further in the autumn months and to stay above 5 percent during the remainder of the year. Overall, based on incoming data and the assumptions in the September Inflation Report, consumer prices are expected to increase by 4.6-4.7 percent in 2021.

The gradual pass-through of increased commodity prices and transport costs into industrial goods prices is expected to be decisive in the case of underlying inflation. Core inflation is expected to rise to close to 4 percent during the remainder of the year. The effects of the Bank's tightening cycle will be clearly felt in 2022. According to the Inflation Report projection, inflation will start to fall from the beginning of 2022 before returning to the central bank tolerance band in the second quarter. The consumer price index is expected to stabilise around the 3 percent central bank target in the second half of 2022. Inflation is expected to be between 3.4 percent and 3.8 percent in 2022 and between 2.8 percent and 3.2 percent in 2023.

The Hungarian economy restarted successfully. Indicating the capability of the Hungarian economy to recover quickly, economic performance exceeded expectations in the second quarter. As a result, GDP will grow by 6.5–7.0 percent in 2021.

Exceeding expectations, the Hungarian economy grew by 17.9 percent in the second quarter compared to the same period a year earlier. GDP reached its pre-pandemic level in the second quarter. Hungary is among the economies in Europe showing the fastest recovery. Based on monthly data, strong economic recovery continued in the third quarter. A wide range of sectors contributed to growth, but there were differences in the pace of recovery. The economy remained resilient in the third wave of coronavirus as well, with the reopening starting in April, earlier than the European average, providing strong momentum to economic growth. With the end of the year approaching, the fourth wave of the coronavirus pandemic is increasing risks to the economic outlook.

In the favourable labour market environment, growth in household consumption is expected to continue. Provided that the pandemic situation does not worsen substantially, domestic demand from households is expected to remain buoyant. As seen in the second quarter, the use of services may provide a significant boost to household consumption growth in the third quarter; however, developments in the pandemic situation pose a great risk looking ahead. The continued recovery in consumption is supported by a decline in the high savings rate, financial assets accumulated by households in recent years as well as by robust real income growth.

A general pick-up in investment is likely to make a positive contribution to GDP growth from 2021 again. In 2021, private investment is expected to rise, while public investment will be around the level seen in 2020 again. Although public development projects are supported by both own and EU funding, their volume has been subdued due to administrative obstacles and construction capacity issues. Those investment projects that had been paused temporarily due to the pandemic have been resumed; therefore, corporate investment is likely to increase over the forecast horizon. Favourable developments in earnings and the Government's housing allowance programmes have both contributed to growth in household investment. Consequently, the investment rate will continue to rise before stabilising around 29 percent in the second half of the forecast horizon.

Hungarian export performance has rebounded strongly in 2021, and with the utilization of new export capacities built in previous years, it is expected to grow strongly over the entire forecast horizon. Hungarian goods exports have also been affected by the global shortage of semiconductors through the disruption in supply chains. The recovery in the domestic automobile industry has been held back by a global shortage in microchips; however, robust growth in battery manufacturing is becoming increasingly dominant in industrial production. Future developments in services exports will largely depend on the pandemic and the performance of international tourism. Hungarian imports may rise significantly as exports and domestic demand items (household consumption, investment) grow as well. Net exports will make a positive contribution to economic performance over the entire forecast horizon.

The rundown of stocks built up last year stopped in the second quarter, which contributed nearly 3 percentage points to economic growth. Manufacturing inventories increased significantly in the first half of the year, reflecting a shortage of raw materials affecting the automobile industry. Industry participants believe that the global shortage of semiconductors will persist in the second half of 2021. As a result, the issue is only likely to be resolved in 2022, and therefore significant destocking is not expected in the second half of the year either.

Credit growth in the private sector remains strong following the restart of the economy, reflecting banks' ample lending capacities and subsidised credit facilities.

The financial intermediary sector's outstanding lending to the corporate sector rose by HUF 37 billion in the second quarter of 2021, and consequently the annual growth rate of the stock of loans reached 8.2 percent in July, rising by 1.5 percentage points. Outstanding lending to the SME sector increased by 21 percent year on year in the period. The number of contracts signed under the FGS Go! played a major role in supporting corporate lending: loans extended under the Scheme accounted for nearly half of total new lending and around two-thirds of lending to SMEs. The credit programmes introduced by the Government and the MNB have provided substantial support for job retention and investment growth. Following the onset of coronavirus, the FGS Go! played a key role in crisis management; however, funding provided by the Programme on a large scale is no longer necessary as the recovery accelerates and uncertainty subsides. In parallel with the recovery in economic growth, the focus has once again shifted towards sustainability considerations and a targeted approach in lending. After the restart of the economy, banks' ample liquidity and strong capital position will allow them to meet the private sector's borrowing requirement on a market basis. The growth rate of the stock of corporate loans is expected to slow down to 5 percent in the coming quarters and then to return to around 8 percent by the beginning of 2023, following a gradual rise.

The stock of household lending by the financial intermediary system rose by HUF 421 billion in the second quarter of 2021. As a result, annual lending growth amounted to 15.3 percent. Lower capital depreciation due to the moratorium on repayments and the unprecedented size of housing loans contributed significantly to the increase in the stock of household loans. Prenatal baby support loan contracts, amounting to HUF 151 billion, also greatly contributed to strong growth in the second quarter, which, looking ahead, may support household lending until the Programme ends in 2022. Personal lending remained below the level seen before the pandemic, while the new volume of housing loans reached a historic high in the second quarter, exceeding its level seen in the same period of 2019 by 44 percent. Based on the responses to the Lending Survey, banks reported a pick-up in demand for both housing loans and consumer loans in the quarter and they expected additional growth in the second half of the year. This was in part driven by new government programmes affecting the housing market, launched in 2021, and by increased demand for pre-financing the home renovation subsidy. The MNB's Green Home Programme, to be introduced in October 2021, will also stimulate green housing lending. As a result of a supportive environment, household lending growth is expected to expand by more than 13 percent in the next two years.

The current account balance is expected to improve over the forecast horizon and the economy's net lending is likely to increase and to stabilise around 3 percent of GDP. Therefore, Hungary's net external debt is expected to fall.

A higher current account surplus will be closely linked to an increase in the foreign trade surplus. The increase in net exports will reflect export capacities built, strengthening external demand and strong growth in exports in parallel with higher industrial production, a fall in expenditures related to protective measures taken against the pandemic as well as the gradual recovery in tourism over the forecast horizon. Net lending will improve significantly in the coming years, reflecting the inflow of EU transfers, although the amount of funds is likely to decline temporarily in 2023 when the current EU budgetary cycle ends. Consistent with the high level of net lending, external debt ratios are expected to fall in the coming years.

The amendment of the 2021 Budget Act and the 2022 Budget Act contain a deficit-to-GDP ratio of 7.5 percent in 2021 and 5.9 percent in 2022. The performance of the Hungarian economy is expected to be more favourable than assumed in the

Budget, which will lead to higher-than-expected increase in tax revenues. Based on the September funding plan, the government debt-to-GDP ratio, even with the September issuance of foreign currency denominated bonds, is expected to decline from 80.4 percent of 2020 to 79.6 percent by the end of 2021 before falling close to 76 percent by the end of the forecast horizon, mainly due to a significant rise in nominal GDP.

Yields on Hungarian government securities rose and the forint appreciated against the euro.

Overall, the government securities yield curve shifted upwards in the past quarter, with the largest rise observed in the long and middle sections of the curve. Movements in long-term yields were primarily influenced by international developments. The forint depreciated in the first half of the period, largely driven by international factors; however, it appreciated significantly against the euro from the end of July. Overall, the Hungarian currency appreciated against the euro by over 1 percent, more strongly than other currencies in the region.

The inflation outlook is surrounded by upside risks.

The Monetary Council highlighted three alternative scenarios around the baseline projection in the September Inflation Report. According to the scenario assuming the fourth wave of coronavirus and a slowing global economy, the inflation path will be lower and the growth path will be more subdued than in the baseline projection. The scenario presenting stronger wage growth and a robust expansion in consumption is consistent with a higher path for inflation and growth than in the baseline projection. The alternative scenario presuming a persistently high external inflation environment points to a higher path for domestic inflation and growth than in the baseline projection. In addition to the scenarios highlighted above, as further alternatives, the Monetary Council discussed scenarios that assume looser monetary conditions globally than expected, an increase in risk aversion vis-á-vis emerging markets and the implementation of competitiveness reforms.

SUMMARY TABLE OF THE BASELINE SCENARIO

(Forecast based on endogenous monetary policy)

	2020	2021	2022	2023
	Actual		Projection	
Inflation (annual average)[1]				
Core inflation	3.7	3.5 - 3.6	3.4 - 3.6	2.9 - 3.2
Core inflation excluding indirect tax effects	3.7	3.5 - 3.6	3.4 - 3.6	2.9 - 3.2
Inflation	3.3	4.6 - 4.7	3.4 - 3.8	2.8 - 3.2
Economic growth				
Household consumption expenditure	-2.5	4.6 - 5.2	5.0 - 6.3	2.4 - 3.6
Government final consumption expenditure[6]	-0.8	3.5 - 4.1	0.9 - 2.1	0.3 - 1.5
Gross fixed capital formation	-7.3	4.3 - 5.3	6.2 - 8.2	2.2 - 4.2
Domestic absorption	-3.0	4.2 - 5.1	4.3 - 5.8	1.9 - 3.2
Exports	-6.8	11.0 - 12.0	6.6 - 8.7	3.7 - 5.8
Imports	-4.4	8.4 - 9.5	5.9 - 8.1	2.7 - 4.9
GDP	-5.0	6.5 - 7.0	5.0 - 6.0	3.0 - 4.0
Labour productivity[5]	-2.8	3.7 - 4.1	3.9 - 4.7	2.8 - 3.6
External balance[2]				
Current account balance	-1.6	(-0.9) - (-0.4)	(-0.1) - 0.8	0.0 - 0.9
Net lending	0.4	1.4 - 1.8	2.4 - 3.3	2.5 - 3.4
Government balance				
ESA balance	-8.1	(-7.3) - (-7.5)	(-5.6) - (-5.9)	(-3.6) - (-3.9)
Labour market				
Whole-economy gross average earnings[3]	9.7	7.7 - 8.4	7.7 - 9.2	6.0 - 7.5
Whole-economy employment	-0.9	0.6 - 0.7	0.8 - 1.0	0.2 - 0.4
Private sector gross average earnings[3]	9.8	7.2 - 8.0	7.1 - 8.7	7.1 - 8.6
Private sector employment	-0.5	0.6 - 0.7	1.0 - 1.2	0.2 - 0.4
Unemployment rate	4.1	3.9 - 4.0	3.4 - 3.7	3.2 - 3.6
Private sector nominal unit labour costs	11.0	3.2 - 3.5	2.8 - 3.4	1.7 - 2.4
Household real income[4]	-0.4	4.1 - 4.8	4.4 - 5.8	2.2 - 3.6

[1] Based on seasonally unadjusted data.
[2] GDP proportionate values, partly based on forecast.
[3] For full-time employees.
[4] MNB estimate.
[5] Whole economy, based on national accounts data.
[6] Includes government consumption and the transfers from government and non-profit institutions.

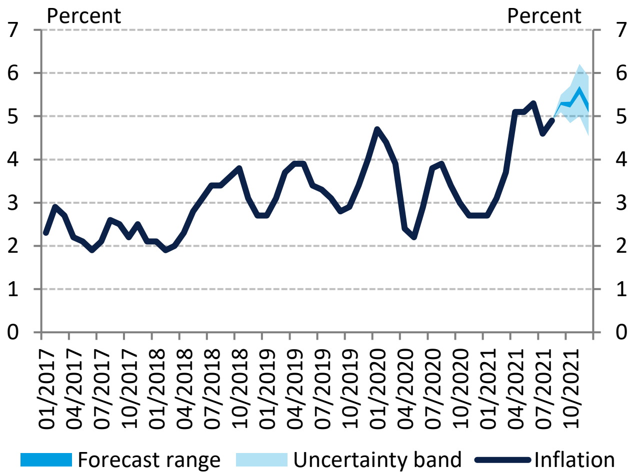
1. Inflation and real economy outlook

The economic outlook for the future has grown more uncertain as a result of the appearance of the fourth wave of the coronavirus pandemic. Due to the situation that evolved we prepared a forecast showing ranges. In determining the bands, we took decision-makers' risk perception and the volatility recorded in previous years into account.

1.1 Inflation forecast

If our current assumptions materialise, inflation will increase further in the autumn months and will thus be above 5 percent for the rest of the year. The effects of the central bank tightening cycle will already become clearly perceptible in 2022. Accordingly, inflation will start to decline from early 2022, reaching the central bank tolerance band again in the second quarter. The consumer price index is expected to stabilise close to the 3-percent central bank target in 2022 H2. Inflation will be 4.6–4.7 percent this year, 3.4–3.8 percent next year and 2.8–3.2 percent in 2023. The large rise in transportation costs and the effect of higher global commodity prices are increasingly reflected in the consumer prices of industrial goods. Anomalies in production chains are expected to resolve next year, with a decline in imported inflation as one of the contributing factors. The price index of market services may increase in line with the historical average over the forecast horizon. Core inflation excluding indirect taxes is forecast to be 3.5–3.6 percent this year, 3.4–3.6 percent next year and 2.9–3.2 percent in 2023. As the cost effects fade out, the price dynamics of non-core inflation items will gradually decline to 3 percent over the forecast horizon. In view of the increase in global oil prices and last year's low base, fuel price inflation may remain around 20 percent in the coming months as well, but with the exclusion of this year's high price dynamics from the base the inflation of this product group will fall significantly from 2022. Another factor contributing to lower inflation is that the excise tax effects related to tobacco products, which raised inflation by 0.6 percentage point on average in 2021, will disappear from next year.

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

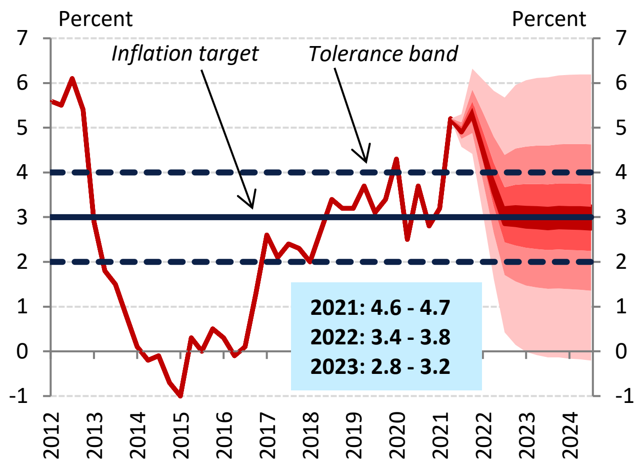


Note: Annual change. The uncertainty band shows the root mean squared error of previous years' near-term forecasts.
Source: HCSO, MNB

The growth rate of consumer prices peaked at 5.3 percent in June, then amounted to 4.9 percent in August; thus, the first inflation peak of this year is behind us. If our current assumptions materialise, inflation will rise further in the autumn months and thus be above 5 percent for the rest of the year. Nevertheless, according to our forecast, inflation will decline into the central bank tolerance band again in 2022 Q2 (Chart 1-1). The rise in inflation in the autumn months is driven primarily by the base effect of last year's lower price dynamics. Consumer prices are expected to rise by 4.6–4.7 percent in 2021. The effects of the central bank tightening cycle will already become clearly perceptible in 2022. Accordingly, inflation will begin to decline from early 2022, reaching the central bank tolerance band again in the second quarter. The consumer price index is expected to stabilise close to the 3-percent central bank target in 2022 H2. Base effects will also contribute to the decline in inflation. According to our forecast, inflation will amount to 3.4–3.8 percent in 2022 and 2.8–3.2 percent in 2023 (Chart 1-2).

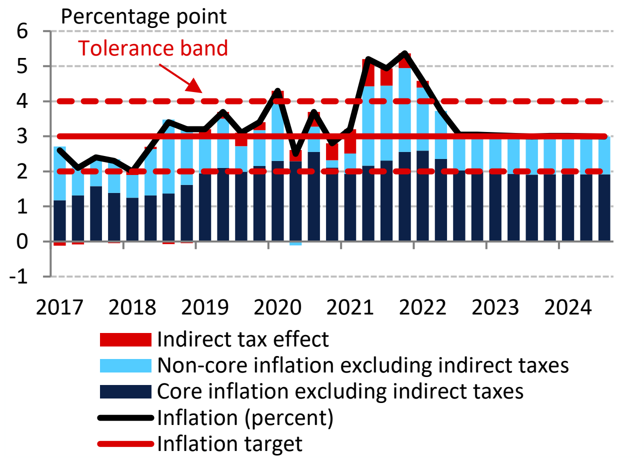
The external inflationary environment continues to have a mitigating effect on the rate of domestic price increases in the medium term. Euro area inflation rose considerably in the past months as a result of the temporary VAT reduction in Germany in the summer of last year and the base effect related to fuels. In September, the ECB raised its previous

Chart 1-2: Fan chart of the inflation forecast



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

Chart 1-3: Decomposition of our inflation forecast



Note: The decomposition belongs to the midpoint for the forecast range.
Source: HCSO, MNB

inflation forecast in view of the incoming higher-than-expected actual data, supply chain problems, stronger demand prospects and higher commodity and energy prices. In terms of inflation, the degree of the revision for this year, next year and 2023 amounted to +0.3, +0.2 and +0.1 percentage point, respectively.

At the same time, core inflation projections for the euro area, which have a more significant impact on domestic price dynamics, will be below the ECB's 2-percent target even in 2023, reaching just 1.5 percent (see Box 1-1). Meanwhile, persistent rises in commodity prices and costs of international forwarding point to a higher external inflation environment.

In terms of underlying inflation trends, according to our expectations, the inflation of industrial goods, which exceeds the historical average, may persist in the next period as a result of large increases in global commodity prices and transportation costs. Within the product group, price rises exceeding the average of previous years were mainly observed in the case of durables. One contributor to this may have been that the significant, more than eightfold increase in transportation costs in a year as well as the impact of the global commodity price rise is reflected in the consumer prices of an increasingly wide range of products. According to our forecast, the high price dynamics typical of industrial goods may persist in the coming period, thus contributing to a rise in underlying trends. The price index of market services stopped rising in the summer, indicating that most of the repricing related to the reopening of the economy may have occurred. Based on typical corporate repricing practices, no major price changes are expected for the rest of the year; they may materialise in early 2022. Following that, the price index of market services may increase in line with the historical average over the forecast horizon. At the same time, starting from 2022, as a result of the effect of proactive central bank steps and the weakening of anomalies in production chains expected next year, the price index of industrial products is expected to gradually decline, supported by a decrease in imported inflation as well. Our current forecast suggests that core inflation excluding indirect tax effects will amount to 3.5-3.6 percent this year, 3.4–3.6 percent next year and 2.9-3.2 percent in 2023.

Changes in indirect taxes suggest higher inflation early in the forecast period and then have a neutral effect starting from next year (Chart 1-5). In line with harmonisation with EU legislation, the excise tax on tobacco products increased in two steps this year: in January and April. In the case of the April increase, which was the last phase of a multiple-

Table 1-1: Details of the inflation forecast

		2021	2022	2023
Core inflation excluding indirect tax effects		3.5	3.5	3.0
Core inflation		3.5	3.5	3.0
Non-core inflation	Unprocessed food	2.6	6.0	4.2
	Fuel and market energy	17.9	6.0	3.6
	Regulated prices	0.6	2.1	2.1
	Alcohol and tobacco	10.4	3.0	3.0
	Total	6.6	3.7	3.0
Inflation		**4.7**	**3.6**	**3.0**

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

step raising cycle, more restrained pass-through was observed compared to what was typical of previous tax changes. The tax content of inflation this year will be somewhat reduced by the fact that – as a result of the rise in oil prices – the excise tax on fuels was lowered from 1 April 2021, in accordance with excise tax rules. On the whole, indirect tax effects will add 0.6 percentage point to inflation in 2021, while exerting a neutral effect in 2022 and 2023.

In the case of non-core inflation items, fuel prices are forecast to rise substantially this year. In view of the increase in global oil prices and last year's low base, fuel price inflation may remain at around 20 percent in the coming months as well, with a strong impact on future developments in inflation. Unprocessed food inflation may be well below the historical average this year, due to the weakening price dynamics of this product group observed in the spring months. At the same time, this effect is gradually offset by a rise – from the negative domain – in the inflation of this product group, in view of the increase in global food prices in the past period. Changes in global food prices pass through to consumer prices via domestic agricultural producer prices over the course of about one or two quarters. Accordingly, global developments may contribute to food price rises in Hungary starting from 2021 H2, as also corroborated by the actual figures for the past months. As a result, unprocessed food inflation in the period ahead will be higher compared to our earlier estimation. As the positive inflationary effects from global developments fade, price dynamics are expected to be around the historical average from 2022 and to correspond to it from 2023. Regulated energy prices will not change until the end of the forecast horizon, whereas the price dynamics of non-energy regulated prices are expected to be higher this year than in our June assumption. This is attributable to the impact of the termination of free parking in public areas introduced in November last year due to the pandemic. Nevertheless, price dynamics are expected to be in line with our previous forecast from next year. On the whole, after the cost effects have faded out, the price dynamics of non-core inflation items will be around 3 percent at the end of the forecast horizon (Table 1-1).

Box 1-1: Assumptions applied in our forecast

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

Table 1-2: Main external assumptions of our forecast

Technical assumptions	2021		2022		2023		Change		
	Previous	Current	Previous	Current	Previous	Current	2021	2022	2023
EUR/USD	1.21	1.19	1.22	1.18	1.22	1.18	-1.5%	-2.7%	-2.7%
Oil (USD/barrel)	67.3	68.3	67.2	68.9	66.5	67.6	1.5%	2.7%	1.6%
Oil (EUR/barrel)	55.5	57.3	55.2	58.3	54.7	57.1	3.1%	5.6%	4.5%
Euro area inflation (%)	1.8 - 1.9 - 1.9	2.2	1.2 - 1.5 - 1.7	1.7	1.1 - 1.4 - 1.7	1.5	0.3 - 0.4 pp.	0.0 - 0.2 - 0.5 pp.	(-0.2) - 0.1 - 0.4 pp.
Euro area core inflation (%)	1.1	1.3	1.3	1.4	1.4	1.5	0.2 pp.	0.1 pp.	0.1 pp.
Euro area real GDP (%)	2.9 - 4.6 - 6.2	5.0	2.3 - 4.7 - 5.5	4.6	2.1 - 2.2 - 2.2	2.1	(-1.2) - 0.4 - 2.1 pp.	(-0.9) - (-0.1) -2.3 pp.	(-0.1) - 0.0 pp.
GDP growth of Hungary's main export partners* (%)	5.3	5.5	4.3	4.2	2.4	2.4	0.2 pp.	-0,1 pp.	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.
Sources: Bloomberg, Consensus Economics, MNB, ECB

The international economic environment was favourable in 2021 Q2, with economies around the world and Europe growing dynamically as a result of the low base. The increase in vaccination coverage at the international level allowed for gradual opening, although its degree varied. Lifting some of the measures also contributed to the commencement of a recovery in services. The economic recovery may proceed dynamically in the world's two largest economies. In 2021 Q2, economic performance in the United States and China exceeded the levels recorded in the same period of the previous year by 12.2 percent and 7.9 percent, respectively. At the same time, GDP in the European Union remains below the pre-crisis level. Recovery in Germany, which is the main trading partner of Hungary, is also progressing slowly. The Delta variant is spreading in several countries, for the time being with lower number of cases – due to the high vaccination coverage – compared to the second and third waves, but at the same time causing further uncertainty primarily in terms of the prospects for the services sector.

The European Central Bank raised its latest inflation forecast due to higher-than-expected incoming data, supply disruptions, stronger demand prospects and higher commodity and energy prices. The consumer price index of the euro area will temporarily exceed the inflation target in 2021. However, following this temporary rise, the ECB continues to project that inflation will fall short of the target in 2022 and 2023. Compared to the June projection, its forecast for euro area GDP growth in 2021 is more favourable, and real GDP may already reach the pre-crisis level at the end of this year. The ECB forecasts growth of 5.0 percent in 2021, 4.6 percent in 2022, and 2.1 percent in 2023. According to the current projection, there will be a large temporary rise in euro area inflation in 2021, mainly owing to base effects related to oil prices. In addition, the phase-out of the temporary VAT cut in Germany, higher input costs due to supply disruptions and the increase in services prices as a result of reopening will contribute to the rise in inflation in 2021. Nevertheless, underlying developments in the euro area may remain subdued over the medium term. Euro area inflation is expected to remain below the ECB's 2-percent inflation target in 2023 as well.

In the past period, the world market price of Brent crude stagnated at above USD 70 per barrel, but has increased by 40 percent since the beginning of 2021. In early July, the world market price of Brent crude rose to a level unseen since end-2018, advancing to USD 75 per barrel, after the OPEC+ countries were temporarily unable to come to an agreement on raising production, due to internal conflicts. At the same time, at their meeting in July, the OPEC+ countries decided to increase production. Accordingly, the cartel is taking an additional 400,000 barrels of crude oil per day to market from August until the end of 2022. In its latest oil market report from August, OPEC increased its forecast for oil demand, in the context of increasing global fuel consumption and difficulties in output. According to the latest survey by the group, the world will continue to face a supply deficit in the coming months. Due to Hurricane Ida in the USA, 95 percent of oil production in the Gulf of Mexico was shut down, causing a serious dip in production. 40 percent of capacities are still shut down. Although, according to OPEC+, the pandemic causes uncertainty, and the rapidly spreading Delta variant results in an increasing number of cases, market fundamentals are strong. According to estimations, global demand for oil is expected to increase to 100 million barrel per day in 2022, while production by OPEC members was only 27 million barrel per day in August, significantly below the level of average demand in the third quarter.

EUR-denominated oil prices, which determine changes in fuel prices in Hungary, are higher than our assumption in June as a result of developments in global markets. Our assumption for the EUR/USD cross rate is slightly lower compared to the June projection.

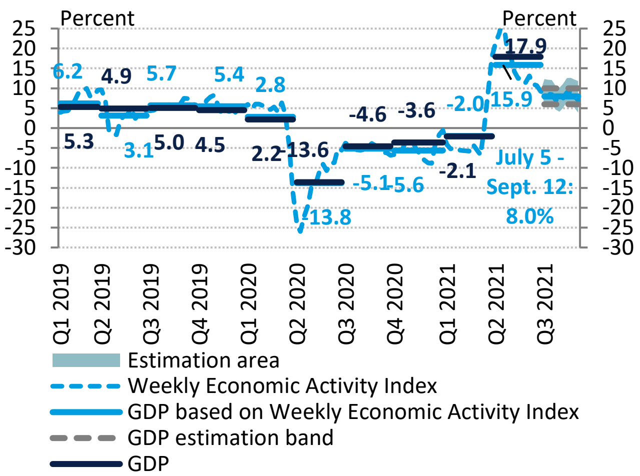
According to our forecast, the budget deficit may be around 7.5 percent in 2021, falling to nearly 5.9 percent in 2022 and nearly 3.9 percent by the end of the forecast period. The Hungarian economy's performance this year will be more favourable than the assumption used in the budget, and thus growth will result in additional tax revenues, which for the most part are forecast to be spent. In 2021, the additional revenues will finance the costs of managing the pandemic and restarting the economy as well as the disbursement of the pension premium, whereas in 2022 they will cover the personal income tax refund of those with children. According to government plans, public investment will exceed 6 percent of GDP in both 2021 and 2022. Nevertheless, implementation is surrounded by risks, because construction and administrative capacity constraints may arise, and the actual economic effect of the completed investment projects may be reduced by price increases.

According to our projection which takes the budget appropriations as a basis, actual absorption of EU funds may rise in 2022. At the same time, the distribution across years of the amount of the absorption of funds related to the cohesion and recovery programmes is surrounded by major uncertainty.

1.2 Real economy forecast

The Hungarian economy restarted successfully. Exceeding expectations, in 2021 Q2 Hungarian GDP grew by 17.9 percent in year-on-year terms, and thus economic performance reached its pre-crisis level. The economy proved to be resilient during the third wave of the pandemic as well, while the economic opening launched in April also gave major momentum to growth. The better-than-expected performance in the second quarter underlines the Hungarian economy's ability to recover rapidly, and accordingly GDP may expand by 6.5–7.0 percent this year. The growth contribution of both domestic demand and net exports will be positive over the forecast horizon. Looking ahead, economic growth is expected to be balanced and robust even by international standards. Hungarian GDP may expand by 5.0–6.0 percent in 2022 and 3.0–4.0 percent in 2023. The recovery in household consumption is expected to continue, and household consumption expenditure may expand by 4.6–5.2 percent this year. If the pandemic situation does not deteriorate considerably, domestic demand from households may remain buoyant. The continued recovery of consumption is supported by the decline in the high savings rate, the financial wealth accumulated by households in the past years as well as by the buoyant expansion in real incomes and in the household loan market. However, household confidence remains significantly lower than its pre-crisis level, partly due to the presence of the Delta variant, which indicates the persistence of uncertainty. The moratorium has been extended until 31 October in its current form, and after that only those in need will be eligible to participate by declaration until 30 June 2022. Corporate investment increases over the forecast horizon, but at a more moderate pace compared to the strong dynamics typical of the pre-crisis years. Growth in corporate loans outstanding may temporarily slow down in the short run and then return to a band between 6–8 percent. Favourable income developments and the Government’s home creation programmes contribute to the expansion in household investment. On the other hand, the volume of public investments falls slightly, partly as a result of administrative barriers and partly due to construction capacity problems. Consequently, investments may expand at a rate of 4.3–5.3 percent this year, while the investment ratio will continue to rise, stabilising at around 29 percent in the second half of the forecast horizon. In terms of services, tourism is still one of the most exposed sectors; prospects for international tourism and the related sectors as well as for sectors that require personal interaction may also depend on the efficiency of the global action taken against the Delta variant. In view of the low base as well, we forecast double-digit growth in Hungarian exports in 2021. As a result of the early, dynamic recovery compared to the average, Hungary’s export market share may increase in 2021 as well, and this trend may continue over the entire horizon. Hungary's imports may also increase significantly in parallel with the expansion of exports and domestic demand items (household consumption, investments).

Chart 1-4: Evolution of the Weekly Economic Activity Index

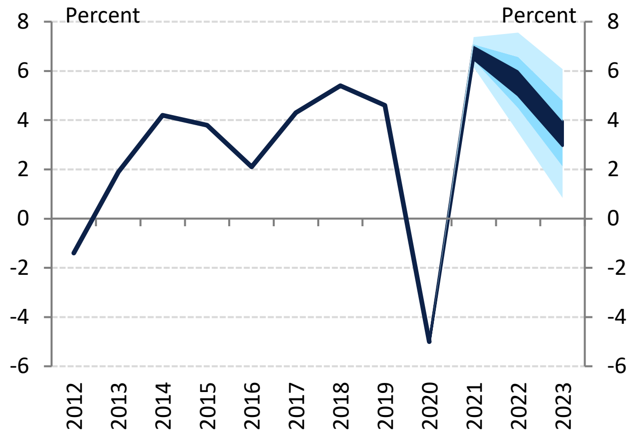


Note: Based on year-on-year change.
Source: MNB calculation

The Hungarian economy restarted successfully. Exceeding expectations, in 2021 Q2 Hungarian GDP grew by 17.9 percent year-on-year, and thus economic performance reached its pre-crisis level. As a result of the longer-term effects of economic opening, economic output will expand significantly in the third quarter as well, as also confirmed by the available high frequency data (Chart 1-4). The rise in the value added of services may be the largest contributor to growth (Chart 1-6). With the gradual economic opening and thanks to the significant easing of restrictions, certain services sectors (such as the catering industry) were already able to restart from the middle of the second quarter, lending momentum to the strong expansion in services output. Growth dynamics will also be strong in the third quarter, when the effects of economic opening will be perceived in full.

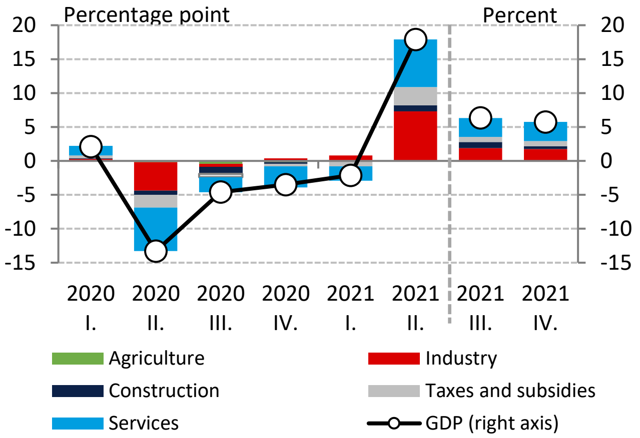
Economic growth is projected to reach 6.5–7.0 percent this year. The growth contribution of both domestic demand and net exports will be positive over the forecast horizon, and thus Hungarian GDP may expand by 5.0–6.0 percent in 2022 and 3.0–4.0 percent in 2023 (Chart 1-5 and Chart 1-7).

Chart 1-5: Fan chart of the GDP forecast



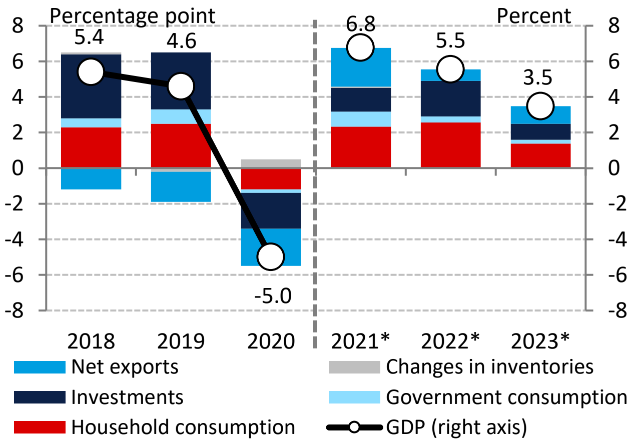
Note: Based on unadjusted data. Source: HCSO, MNB

Chart 1-6: Output side decomposition and GDP forecast



Note: The values represent the middle of the forecast range. Source: HCSO, MNB

Chart 1-7: Expenditure side decomposition and GDP forecast



Note: *MNB forecast. The values represent the middle of the forecast range. Government consumption includes government consumption and the transfers from government and non-profit institutions. Source: HCSO, MNB

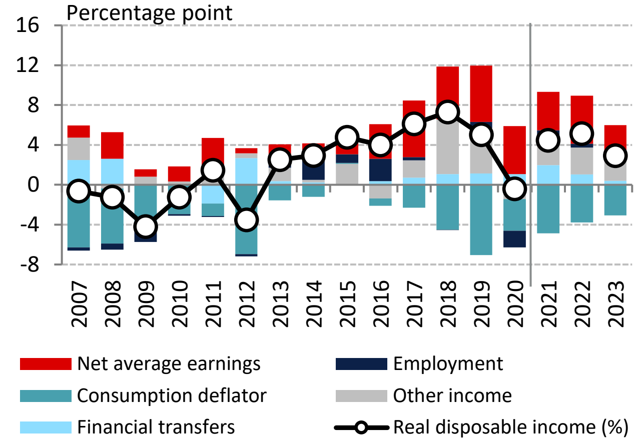
The convergence of the Hungarian economy to the euro area will continue in the coming years. The growth surplus of the Hungarian economy compared to the euro area will remain positive, at around 1.5 percentage points on average over the entire horizon, but will decline in relation to the 2.2-percent surplus registered in the pre-crisis period between 2013–2019.

In 2021, households' disposable income will be increased by the historically high employment, favourable income developments and various government measures (Chart 1-8). Households' disposable income is affected by earned income as well as by fiscal transfers. Gradual reintroduction of the 13th-month pension started in February 2021, representing additional benefits amounting to HUF 86 billion for those receiving pensions or pension-like benefits. Moreover, a pension premium of unprecedented size may be disbursed in November 2021 in view of the rapid economic recovery. In the event of economic growth of around 7 percent, pensioners may receive pension premium amounting to HUF 150 billion this year, with a maximum disbursement of HUF 65,000 per person. Based on the latest data, the historically high employment and favourable income developments continue to indicate a steady expansion in households' income. The latter factor is examined in Box 3-2.

In line with the favourable income developments, household consumption continued to rebound. In 2021 Q2, household consumption expenditure increased by 10.6 percent year-on-year and by 1.7 percent compared to Q1, thus falling short of its pre-crisis level by a mere 0.6 percent. The consumption of services (with an expansion of 19.9 percent compared to last year's low base) was the largest contributor to consumption growth in 2021 Q2. Looking ahead, however, the timing of the recovery in consumption is surrounded by uncertainty due to the appearance of the Delta variant. This is also reflected in the fact that – in conjunction with favourable business confidence indices – household confidence remains moderate, reflecting the mounting uncertainty due to the Delta variant.

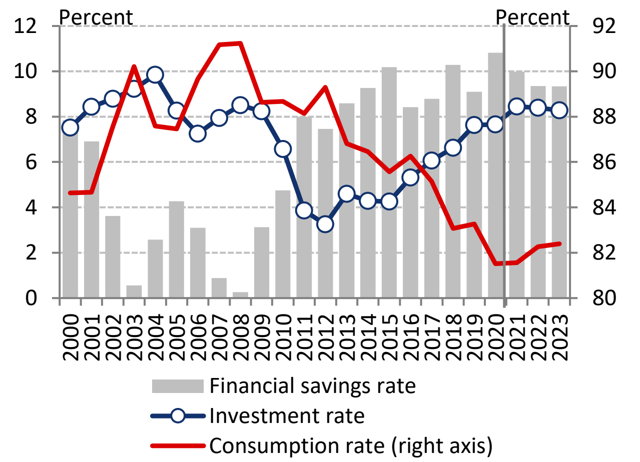
In parallel with a decline in the savings rate, the household investment rate is rising, while the consumption rate is stable this year (Chart 1-9)**.** Consumption expenditures are expected to increase proportionally to incomes this year, and thus the consumption rate will be stable in the period ahead. Nevertheless, spending on investment will grow faster than incomes, and thus the investment rate will rise to a high level, while forced savings will gradually decline. Next year, however, the consumption rate is also expected

Chart 1-8: Evolution of household disposable income



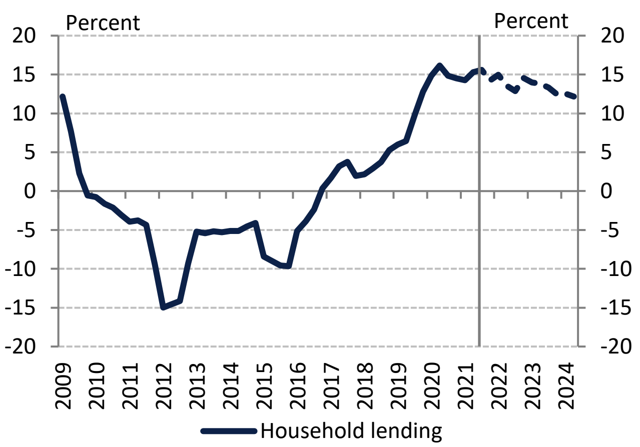
Note: Based on the mean of the forecast band.
Source: HCSO, MNB

Chart 1-9: Evolution of households' consumption, investment and financial savings rates as a percentage of disposable income



Source: HCSO, MNB

Chart 1-10: Annual changes in lending to households



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

to increase, while the household investment rate will stabilise at a high level.

Household lending may continue to grow at double-digit rates, despite the negative impacts of the pandemic on the real economy (Chart 1-10). The growth rate may slightly exceed our previous expectations. In addition to the moratorium on payments, which was extended in a narrower form, and the state-subsidised credit programmes, the pick-up in demand will also support household lending. Demand for prenatal baby support loans remains strong. The developments in lending expected over the forecast horizon may contribute to stronger household consumption.

From this year, investment is making a positive contribution to economic growth. Private investment is expected to increase in 2021, while the volume of public investment declines slightly (Table 1-3). Over the forecast horizon, investment growth may be lower than the double-digit rates typically seen in the pre-crisis period. Similarly to GDP, investment also reached its pre-crisis (2019 Q4) level in Q2.

Corporate lending stimulates corporate investment. As reflected by actual figures, in 2021 the annual growth rate of corporate loans outstanding may be somewhat less favourable compared to our previous expectations, but favourable real economy data, the still-low real interest rate, banks' ample lending capacities, the expansion of subsidised credit schemes and – to a lesser degree – an extension of the moratorium in a narrower form will contribute to maintaining high corporate loan dynamics (Chart 1-11). The upswing in corporate borrowing and investment is supported by state loan and guarantee programmes as well as by the Bond Funding for Growth Scheme.

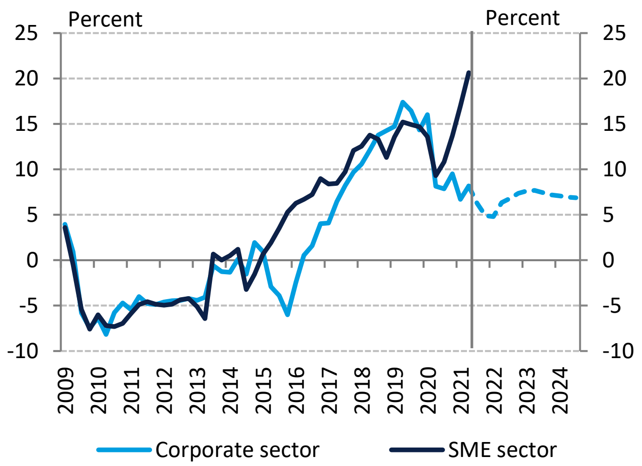
Corporate investment continues to recover this year. Relaunching projects temporarily suspended due to the pandemic will also contribute to growth. Looking ahead, we do not expect the high corporate investment dynamics typical prior to the crisis to return. According to the MNB's survey of corporate economic activity, the ratio of companies planning investment in the next quarter has been contracting moderately since June, but remains at a high level. In July, the majority of the responding service provider and trading firms decided to postpone investments, but investment expectations improved considerably in the sector in August (Chart 1-12). A slight decline was observed in industry and construction since June, but prospects continue to be favourable, and the

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

	2021	2022 Projection	2023
Gross fixed capital formation	4.8	7.2	3.2
Government investments	-0.7	7.4	-11.8
Private investments	6.5	7.1	7.7
Investment rate	27.9	28.8	29.0

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

Chart 1-11: 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

weighted average of respondents also stands at a relatively high level.

The value of public investment as a percentage of GDP may develop around its 2020 level. Most of the funds disbursed for investment purposes at the end of last year may be realised as investment this year and next year. Most government investments are construction-type investment and are thus affected by the increasingly effective supply constraints in construction and the rising prices of base materials.

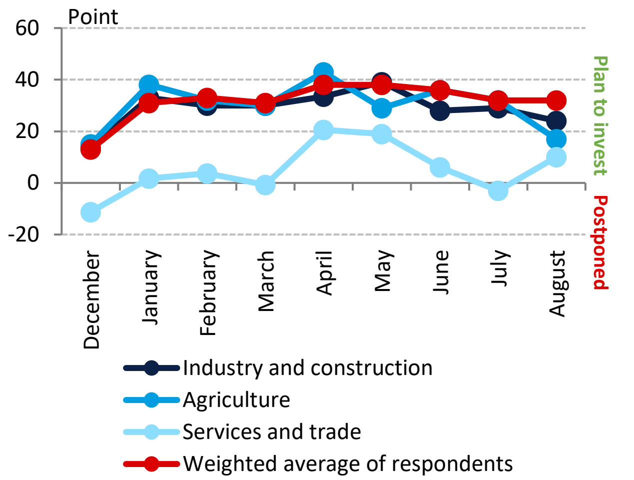
Household investment increases as a result of favourable income developments and the Government's home creation programmes. In October 2020, the Government announced various measures to facilitate families' home creation (preferential VAT rate for residential properties, home improvement programme, duty exemption on the purchase of housing property, reclaimable VAT), which will contribute to the increase in households' investment activity in the coming years. The home renovation programme already contributes to the expansion in household investment from 2021 H1, whereas in the second half of the forecast horizon an increase in home construction will also support growth. At the same time, downside risks can also be identified, as limited construction capacities and the significant price rise observed in H1 may lead to more subdued expansion in household investment.

The investment ratio will continue to increase, stabilising at around 29 percent in the latter half of the forecast horizon (Table 1-3).

Hungary's external demand may grow dynamically in view of last year's low base (Chart 1-13). In Q2, global trade was well above last year's level, but owing to the surge in transportation costs, the difficulties caused by the pandemic in logistics and the global shortage of certain base materials, it lost some of its momentum together with global industrial production. In spite of dynamic economic growth, signs of deceleration are being seen in China and the USA, the world's two largest economies. European prospects also improved to some extent in view of favourable incoming data, but uncertainty is perceived here as well due to the spread of the Delta variant.

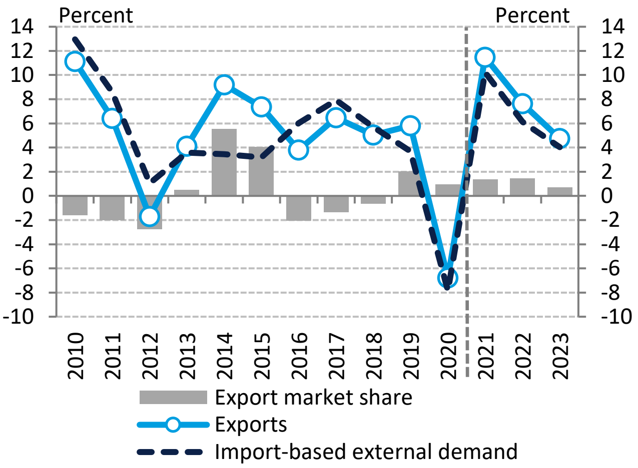
In our forecast, a double-digit increase in Hungary's exports is expected in 2021 as a result of the low base (Chart 1-13). By the final quarter of last year, exports had already rebounded from their decline seen in 2020 Q2 and have remained above their pre-crisis level since then. The recovery was mainly driven by strong performance in goods

Chart 1-12: Share of companies planning investments in the next three months



Note: The index is a difference of the shares of positive and negative answers.
Source: MNB

Chart 1-13: Changes in export market share



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

exports, although negative risks in relation to this sector's output also appeared. The global shortage of semiconductors affecting the vehicle industry, which produces mainly for export, and subdued developments in the German industry may influence the performance of Hungarian exports, while mounting uncertainty linked to the spread of the Delta variant may affect the recovery in international tourism and thus the services export performance. The impact of the more subdued performance of vehicle exports due to the shortage of base materials may be mitigated as previous years' FDI projects start production, including, inter alia, an upturn in battery manufacturing in Hungary. As a result of the persistent weakness in international tourism, which may be even last longer due to the spread of the Delta variant, in contrast to goods exports, Hungary's services exports may fall short of their pre-pandemic levels for a longer time. As a result of the early, dynamic recovery compared to the average, Hungary's export market share may increase in 2021 again, and this trend may continue over the entire horizon.

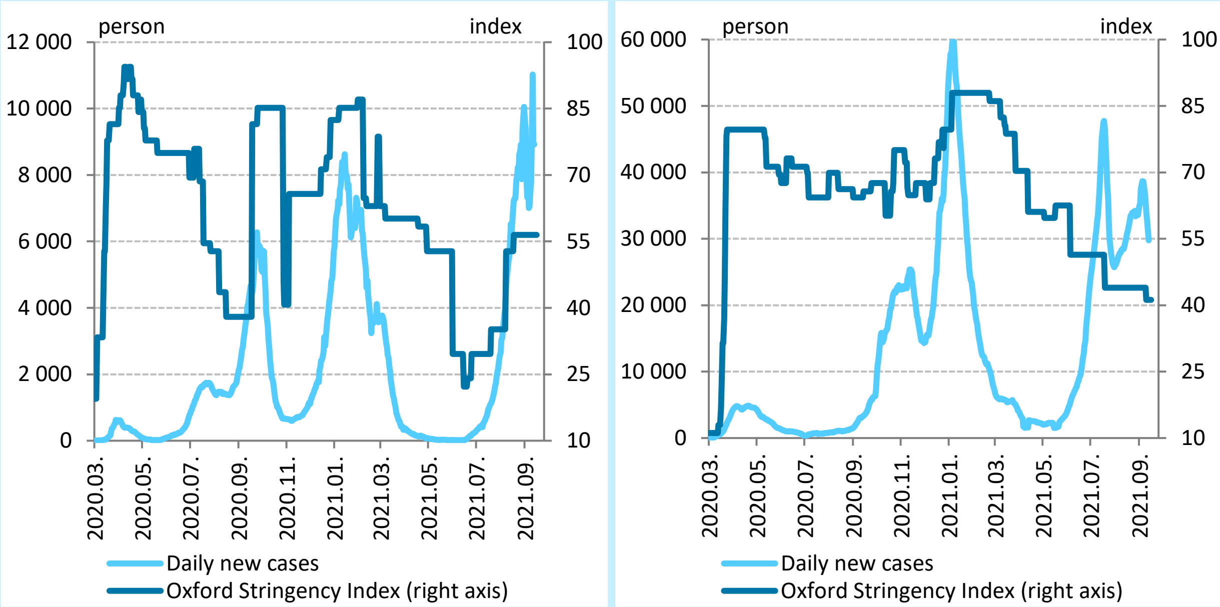
From this year, as a result of robust growth in domestic demand and exports, imports may also expand markedly. Owing to the significant government measures aimed at stimulating the economy, investment and household consumption may also raise imports considerably, along with the import demand linked to export goods. Nevertheless, in our forecast the growth rate of exports persistently exceeds that of imports, and net exports support growth over the entire horizon.

Contrary to our expectations, the reduction of inventories accumulated last year did not continue in Q2. Changes in inventories contributed to economic growth by nearly 3 percentage points. Inventories in manufacturing rose considerably in H1, which may be related to the shortage of base materials affecting the vehicle industry. According to actors in the sector, the global shortage of semiconductors may persist in 2021 H2 as well, and the situation may return to normal only in 2022. Therefore, no significant reduction of inventories is expected in H2.

Box 1-2: Economic impacts of the fourth wave of the coronavirus pandemic

The fourth wave of the pandemic has already started in several countries. By the end of the summer months the number of new coronavirus cases began to rise in several countries with the spread of the Delta variant. In Israel, for example, by end-August the daily number of cases already exceeded the January pandemic peak, but the increase in the number of cases was also significant in Great Britain (Chart 1-14). The upward trend appeared in Hungary as well, after the third wave of the pandemic had tapered off in early summer. So far, the number of infections has remained well below the level of the previous waves and roughly corresponds to the same period of last year (Chart 1-15). Taking previous experiences into account, this box examines what kinds of economic effects the latest, fourth wave of the coronavirus may have.

Chart 1-14: Daily new cases and degree of stringency in Israel (left panel) and the United Kingdom (right panel)



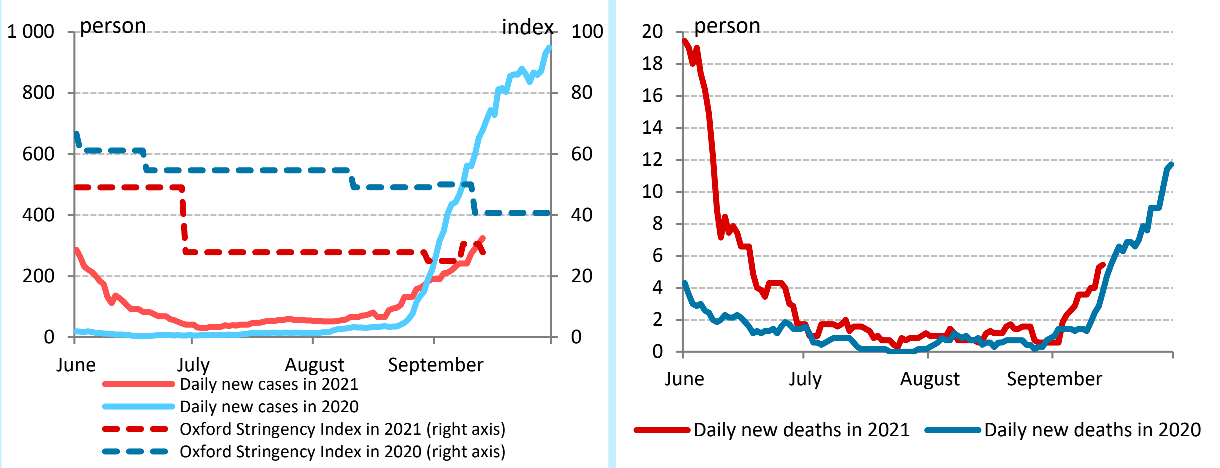
Note: Daily new cases based on seven-day central moving average.

Source: John Hopkins University, Hale et al. (2020): Oxford COVID-19 Government Response Tracker

The nature of the fourth wave may differ radically from previous experience. Although the number of infections has surged in several countries, for the time being the number of deaths has not started to rise to a similar degree. This cannot solely be explained with the course of the virus infection, as the number of cases has been rising for at least 1 month in the aforementioned countries.

Compared to the previous waves, vaccinations are the biggest difference. The high level of vaccine coverage may contribute to a lower ratio of fatal outcomes than before. Moreover, as time goes by, medical science is collecting more and more information on the behaviour of the virus and its different variants, which may also contribute to improving the efficiency of epidemiological measures.

Chart 1-15: Daily new cases, deaths, and the degree of stringency in Hungary



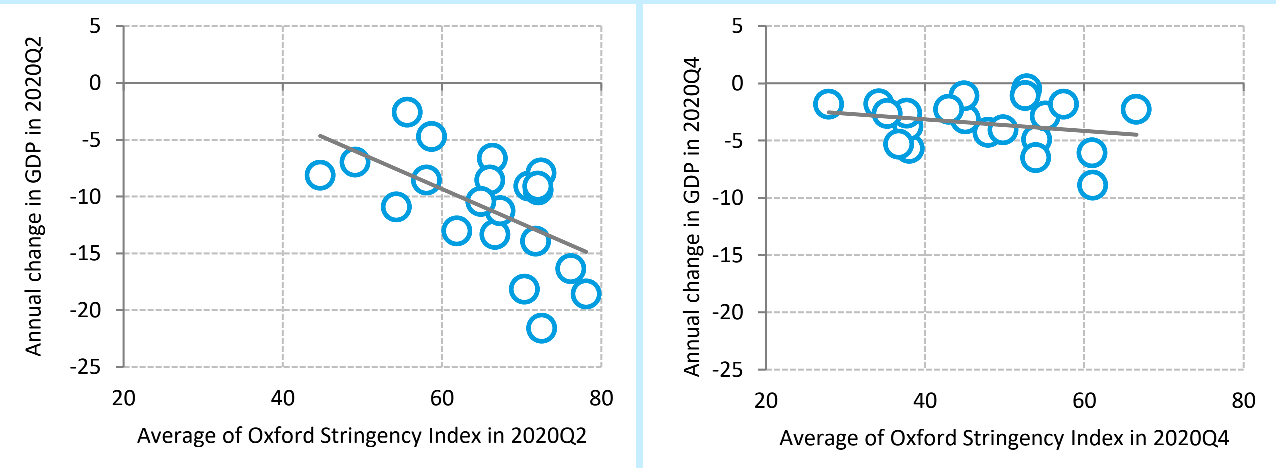
Note: Daily new cases and deaths based on seven-day central moving average.

Source: John Hopkins University, Hale et al. (2020): Oxford COVID-19 Government Response Tracker

Based on all the above, the fourth wave does not necessarily imply such strict lockdowns as in the past. Based on the experience to date, the increase in the number of cases related to the current wave of the pandemic does not warrant an immediate tightening of economic restrictions: in Israel, the surge in the pandemic situation in early June was followed by more moderate restrictions than before, which were even eased further in August, in parallel with a further rise in cases (Chart 1-15, left panel). In Great Britain, the increase in the number of cases only resulted in a slowdown in, but not reversal of the multiple-step opening of the economy, which had been started earlier (Chart 1-15, right panel).

The economic impact of the lockdowns is weakening. The containment measures introduced during the first wave of the pandemic strongly restrained economic performance all over the world. In order to avoid another major downturn, at the time of the second and third waves governments introduced containment measures more gradually and in a more targeted manner. As a result, the correlation between the degree of government stringency and the fall in GDP also weakened during the subsequent waves of the pandemic (Chart 1-16).

Chart 1-16: Changes in GDP and the degree of government stringency in 2020 Q2 (left panel) and Q4 (right panel)



Note: Countries of the European Union, South Korea and the United States.

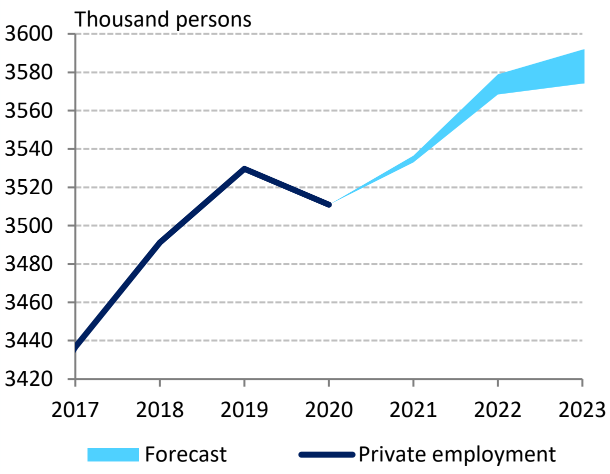
Source: John Hopkins University, Hale et al. (2020): Oxford COVID-19 Government Response Tracker, Eurostat

The expected economic effects of the fourth wave pose a major risk to the forecast. There is a high degree of uncertainty around the quantifiability of the economic effects of the latest wave of the pandemic, as the virulence of the new variants may change unexpectedly at any time. In addition to the stringency of economic restrictions, the cautiousness of people also influences the economic consequences. Nevertheless, based on the experience to date, even a more serious course of a pandemic wave would rather have a major impact on next year's economic performance as a result of carry-over effects.

1.3 Labour market forecast

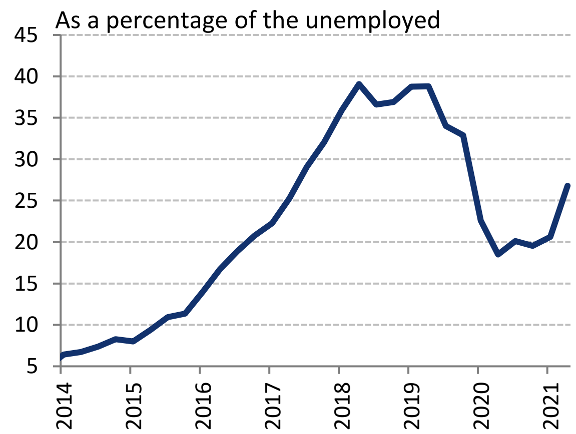
Demand for labour also began to grow rapidly in parallel with the restarting of the economy. The number of employed in the private sector is expected to increase by 0.6–0.7 percent in 2021, before increasing by another 1.0–1.2 percent in 2022. According to our projection, full employment will be reached again in the second half of the current year, and the unemployment rate will remain below 4 percent in 2021 Q3 and Q4, before declining to 3.2–3.6 percent by the end of the forecast horizon. The effect of the change in headcount and the decrease in the number of part-time workers compared to last year's level lead to an underestimation of the official wage index. After filtering out these distorting effects, we can see dynamic underlying processes in wages. Labour market tightness and the competition for skilled labour are leading to persistently rising real wages, however expansion has not reached the pre-crisis level so far.

Chart 1-17: Change in private sector employment



Source: HCSO, MNB

Chart 1-18: Evolution of labour market tightness



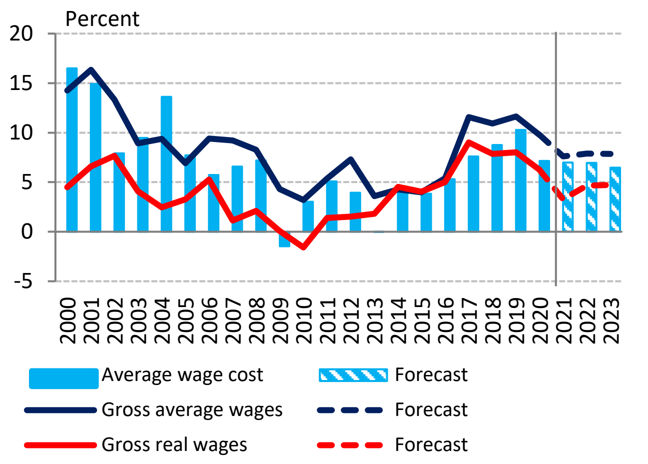
Note: Seasonally adjusted, quarterly data.
Source: HCSO, MNB

Demand for labour also began to strengthen in parallel with the restart of the economy. According to the ESI survey, which monitors employment prospects, companies are planning headcount increases in all major sectors in the coming months. At the same time, more and more employers think that labour shortage is the main obstacle to production. This is a problem in industry and construction in particular, while in terms of services, paradoxically enough it is also a problem in the sectors affected most severely by the pandemic, i.e. in the catering industry and trade.

According to our forecast, private sector employment will reach its pre-crisis level before the end of the year. Q2 headcount data were more favourable than expected; the number of employees in the private sector was 1.6 percent up year-on-year. In addition to the growth in the demand for labour, we took into account that due to the long-term recovery of international tourism, employees who return from abroad for good may increase the number of those working in the private sector by 15–20 thousand people. According to our forecast, the number of employed in the private sector will rise by 0.6-0.7 percent in 2021, before increasing further by 1.0-1.2 percent in 2022 (Chart 1-17). In addition to the expansion in headcount, the recovery of the labour market also entails the restoration of working hours; full-time equivalent (FTE) headcount may increase by 2.2-2.3 percent in 2021.

With rapid recovery in the labour market, full employment may be achieved again in 2021 H2. The number of registered unemployed is declining month by month and was just 10,000 higher than the pre-pandemic level in August. By reaching full employment again, the unemployment rate is expected to be persistently below 4 percent in Q3 and Q4, before declining to 3.2–3.6 percent by the end of the forecast horizon as a result of stronger labour demand, expansion in employment and positive developments in economic activity. The number of active people is expected to grow moderately starting from next year in view of employees returning from abroad due to the

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



Note: The annual wages and labor cost variables are consistent with the range of the band in our forecast.
Source: HCSO, MNB

long-term recovery of international tourism and the PIT exemption entering into force in 2022.

Labour market tightening may drive wage developments, while downward statistical effects result in an underestimation of the wage index this year. In the second quarter of 2021, the number of vacancies had almost reached the pre-crisis level, the labour demand in manufacturing and market services increased significantly on an annual basis. Thus, as the number of unemployed decreased, labour market tightness increased significantly in the last quarter (Chart 1-18). The milder increase in regulated wages as well as the statistical effects stemming from the change in headcount and the restoration of part-time employment due to the coronavirus pandemic (see Section 3.3) will result a temporary slowdown in the private sector wage index, but they are expected to fade out by early 2022. Filtering out these statistical effects, we see dynamic underlying processes in wages. According to our forecast, annual wage growth in 2021 will amount to 7.2-8.0 percent in the private sector, with wage growth of 7.1-8.7 percent anticipated over the forecast horizon. Labour market tightening will result in a sustained rise in real wages (Chart 1-19).

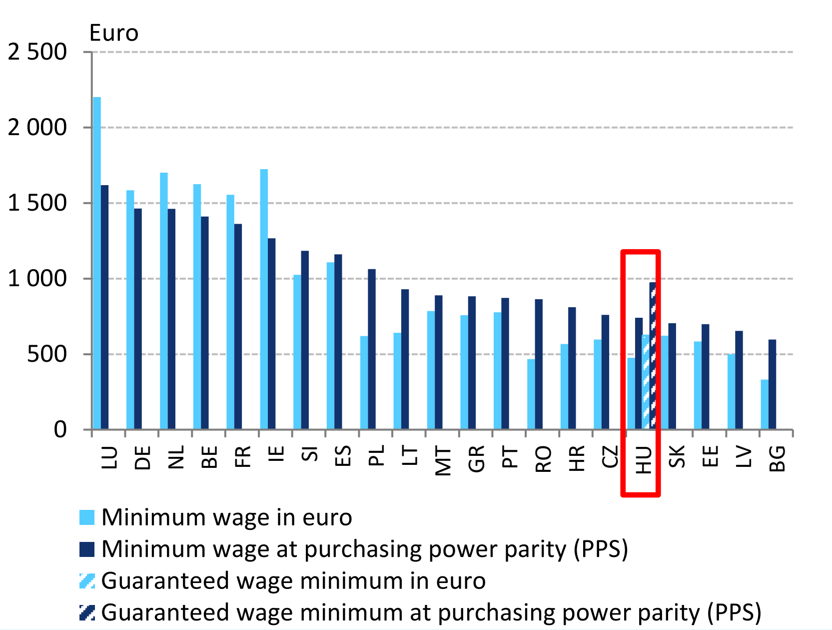
Box 1-3: Minimum wages in Hungary

Many (i.e. some 1 million people) of those employed in Hungary earn approximately as much as the minimum wage or the guaranteed wage minimum. This box provides a more detailed analysis of the Hungarian minimum wage and guaranteed wage minimum in an international comparison and an overview of the characteristics of those employees who earn the lowest wages.

The gross minimum wage in Hungary in 2021 amounted to HUF 167,400 (EUR 476), which is the 2nd lowest in the European Union, ahead of Bulgaria. Nevertheless, minimum wages should be compared at purchasing power parity, based on which the Hungarian minimum wage is the 5th lowest in the EU (Chart 1-20). Of the countries of the region, the level of the gross minimum wage at purchasing power parity is higher in Poland, Romania and Croatia than in Hungary, whereas the levels of the Slovak and Czech minimum wages are similar to the Hungarian one.

In Hungary, nearly one and a half times more people earn the guaranteed wage minimum than the minimum wage, and therefore, it is also worth examining the level of the former in an international comparison. The guaranteed wage minimum is due to those employees who work in a job that requires at least secondary qualifications or secondary school level vocational qualification. In 2021, the expected wage minimum is 31 percent higher than the minimum wage, i.e. HUF 219,000 (EUR 622), which corresponds to the average EU minimum wage at purchasing power parity, and the 10th highest value in the ranking of European countries.

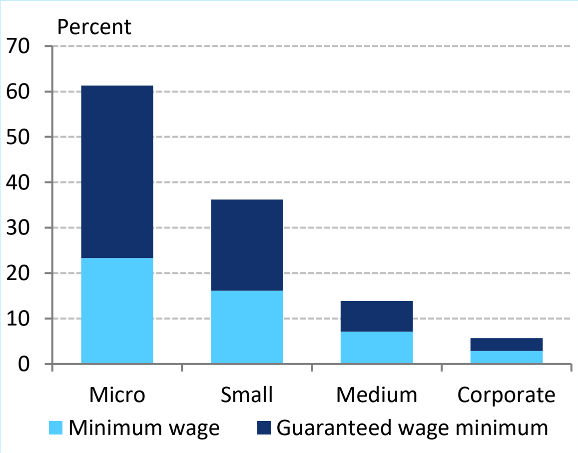
Chart 1-20: Minimum wages in EU Member States in 2021

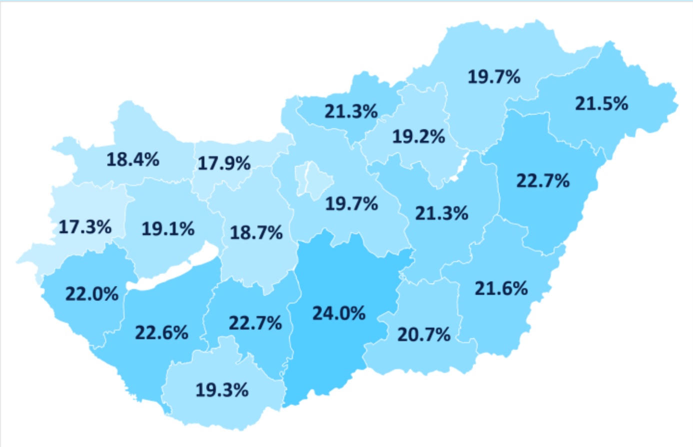


Source: Eurostat

In 2020, the earnings of some 9 percent of employees were around the minimum wage, while the ratio of those earning the guaranteed wage minimum was around 13 percent. The majority (80–85 percent) of employees who earn the minimum wage or guaranteed wage minimum work at Hungarian-owned SMEs (Chart 1-21 left). The smaller a firm, the larger proportion of its employees earn the minimum wage or an amount around the guaranteed wage minimum. In a regional comparison, it can be established that the ratio of employees earning the minimum wage or guaranteed wage minimum is the highest in the southern and eastern counties; the earnings of nearly one quarter of the employees in these regions are around the regulated wages (Chart 1-21 right).

Chart 1-21: Ratios of those earning the minimum wage and guaranteed wage minimum according to company size (left panel) and counties (right panel)

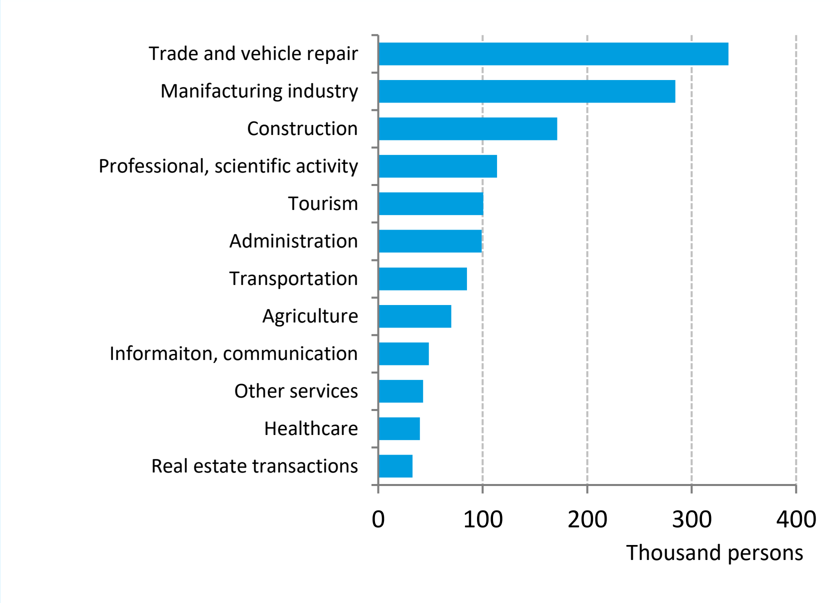




Note: Employees of budgetary organisations are not included in the chart.
Source: Central Administration of National Pension Insurance, NTCA data, MNB calculation

The highest number of employees earning the minimum wage or guaranteed wage minimum work for trading, manufacturing and construction enterprises (Chart 1-22). The ratio of those employed by SMEs is the highest in these sectors: more than 330,000 people work for small and medium-sized enterprises in the trade and vehicle repair sector, 285,000 in manufacturing and 171,000 in construction. In addition to them, those working in accommodation and food services or engaged in professional or scientific activities are the ones who may most frequently face the lowest wages.

Chart 1-22: Number of people employed by small and medium-sized enterprises by sector



Note: The data of financial (K), insurance activity and administration, defence; mandatory social insurance (O) sectors are not released by the HCSO in the above breakdown; therefore, they are not shown in the chart.
Source: HCSO

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

	2020	2021		2022		2023	
	Actual	Forecast					
		Previous	Current	Previous	Current	Previous	Current
Inflation (annual average)[1]							
Core inflation	3.7	3.1	3.5 - 3.6	3.1	3.4 - 3.6	3.0	2.9 - 3.2
Core inflation excluding indirect tax effects	3.7	3.1	3.5 - 3.6	3.1	3.4 - 3.6	3.0	2.9 - 3.2
Inflation	3.3	4.1	4.6 - 4.7	3.1	3.4 - 3.8	3.0	2.8 - 3.2
Economic growth							
Household consumer expenditure	-2.5	4.6	4.6 - 5.2	5.6	5.0 - 6.3	3.0	2.4 - 3.6
Government final consumption expenditure[6]	-0.8	3.8	3.5 - 4.1	1.6	0.9 - 2.1	0.9	0.3 - 1.5
Gross fixed capital formation	-7.3	4.7	4.3 - 5.3	7.5	6.2 - 8.2	3.2	2.2 - 4.2
Domestic absorption	-3.0	4.0	4.2 - 5.1	5.2	4.3 - 5.8	2.6	1.9 - 3.2
Exports	-6.8	11.5	11.0 - 12.0	7.4	6.6 - 8.7	5.0	3.7 - 5.8
Imports	-4.4	8.9	8.4 - 9.5	7.2	5.9 - 8.1	4.1	2.7 - 4.9
GDP	-5.0	6.2	6.5 - 7.0	5.5	5.0 - 6.0	3.5	3.0 - 4.0
Labour productivity[5]	-2.8	3.7	3.7 - 4.1	4.8	3.9 - 4.7	3.3	2.8 - 3.6
External balance[2]							
Current account balance	-1.6	1.4	(-0.9) - (-0.4)	2.1	(-0.1) - 0.8	1.9	0.0 - 0.9
Net lending	0.4	3.6	1.4 - 1.8	4.6	2.4 - 3.3	4.3	2.5 - 3.4
Government balance[2]							
ESA balance	-8.1	-7.5	(-7.3) - (-7.5)	-5.9	(-5.6) - (-5.9)	-3.9	(-3.6) - (-3.9)
Labour market							
Whole-economy gross average earnings[3]	9.7	8.0	7.7 - 8.4	7.8	7.7 - 9.2	7.2	6.0 - 7.5
Whole-economy employment	-0.9	0.4	0.6 - 0.7	0.7	0.8 - 1.0	0.3	0.2 - 0.4
Private sector gross average earnings[3]	9.8	7.4	7.2 - 8.0	7.6	7.1 - 8.7	7.7	7.1 - 8.6
Private sector employment	-0.5	0.0	0.6 - 0.7	1.1	1.0 - 1.2	0.3	0.2 - 0.4
Unemployment rate	4.1	3.9	3.9 - 4.0	3.5	3.4 - 3.7	3.4	3.2 - 3.6
Private sector nominal unit labour cost	11.0	2.9	3.2 - 3.5	1.4	2.8 - 3.4	2.5	1.7 - 2.4
Household real income[4]	-0.4	4.2	4.1 - 4.8	5.3	4.4 - 5.8	2.8	2.2 - 3.6

[1] Based on seasonally unadjusted data.
[2] GDP-proportionate values, partly based on forecast.
[3] For full-time employees.
[4] MNB estimate.
[5] Whole economy, based on national accounts data.
[6] Includes government consumption and transfers from government and non-profit institutions.

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

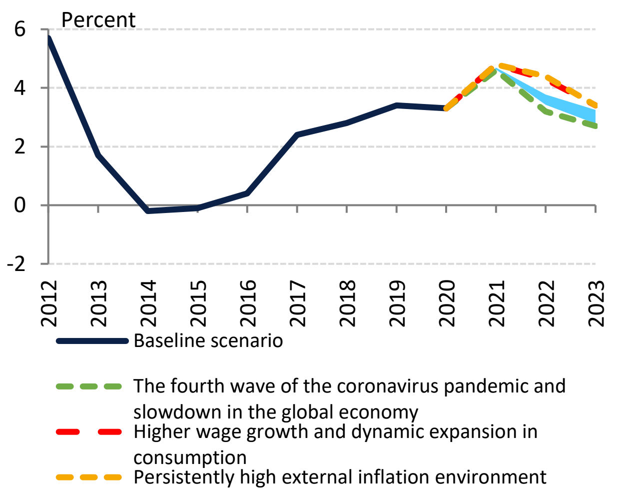
	2021	2022	2023
Consumer Price Index (annual average growth rate, %)			
MNB (September 2021)	4.6 - 4.7	3.4 - 3.8	2.8 - 3.2
Consensus Economics (August 2021)[2]	3.9 - 4.4 - 4.8	2.9 - 3.5 - 4.4	
European Commission (July 2021)	4.4	3.3	
IMF (April 2021)	3.6	3.5	3.3
OECD (May 2021)	3.9	3.9	
Reuters survey (September 2021)[1]	4.3 - 4.6 - 4.8	3.3 - 3.7 - 4.4	2.9 - 3.2 - 4.0
GDP (annual growth rate, %)			
MNB (September 2021)	6.5 - 7.0	5.0 - 6.0	3.0 - 4.0
Consensus Economics (August 2021)[2]	4.7 - 6.4 - 7.9	3.7 - 5.0 - 7.0	
European Commission (July 2021)	6.3	5.0	
IMF (April 2021)	4.3	5.9	3.8
OECD (May 2021)	4.6	5.0	
Reuters survey (September 2021)[1]	5.8 - 7.2 - 8.0	3.6 - 5.0 - 7.0	3.5 - 4.0 - 4.5
Current account balance[3]			
MNB (September 2021)	(-0.9) - (-0.4)	(-0.1) - 0.8	0.0 - 0.9
European Commission (May 2021)	-0.6	-0.5	
IMF (April 2021)	-0.4	-0.3	-0.2
OECD (May 2021)	0.8	0.8	
Budget balance (ESA 2010 method)[3]			
MNB (September 2021)	(-7.3) - (-7.5)	(-5.6) - (-5.9)	(-3.6) - (-3.9)
Consensus Economics (August 2021)[2]	(-8.5) - (-7.2) - (-5.5)	(-6.8) - (-5.5) - (-4.0)	
European Commission (May 2021)	-6.8	-4.5	
IMF (April 2021)	-6.5	-4.8	-3.6
OECD (May 2021)	-7.5	-5.9	
Reuters survey (September 2021)[1]	(-7.7) - (-7.0) - (-5.4)	(-6.5) - (-5.6) - (-2.9)	(-4.5) - (-3.8) - (-2.0)
Forecasts on the GDP growth rate of Hungary's trade partners (annual growth rate, %)			
MNB (September 2021)	5.0 - 5.7	3.7 - 4.9	1.8 - 3.1
ECB (September 2021)	4.1 - 5.0 - 5.8	2.2 - 4.6 - 5.7	1.9 - 2.1 - 2.3
Consensus Economics (August 2021)[2]	4.3	4.2	
European Commission (July 2021)[2]	3.9	4.0	
IMF (July 2021)[2]	4.3	4.0	2.3
OECD (May 2021)[2]	4.1	4.4	

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

2. Effects of alternative scenarios on our forecast

The Monetary Council highlighted three alternative scenarios around the baseline projection in the September Inflation Report. According to the scenario that takes into account the fourth wave of the coronavirus pandemic and presumes a slowdown in the global economy, lower inflation and more restrained growth paths materialise than the baseline scenario. The scenario that presents higher wage growth and a dynamic expansion in consumption is in line with higher inflation and higher growth paths compared to the baseline scenario. The alternative scenario that presumes a persistently high external inflation environment entails higher domestic inflation and higher growth paths than the baseline forecast. In addition to the scenarios highlighted above, as further alternatives, the Monetary Council discussed scenarios that assume looser-than-expected global monetary policy conditions, an increase in risk aversion vis-á-vis emerging markets and the implementation of competitiveness reforms.

Chart 2-1: Impact of alternative scenarios on the inflation forecast



Source: MNB

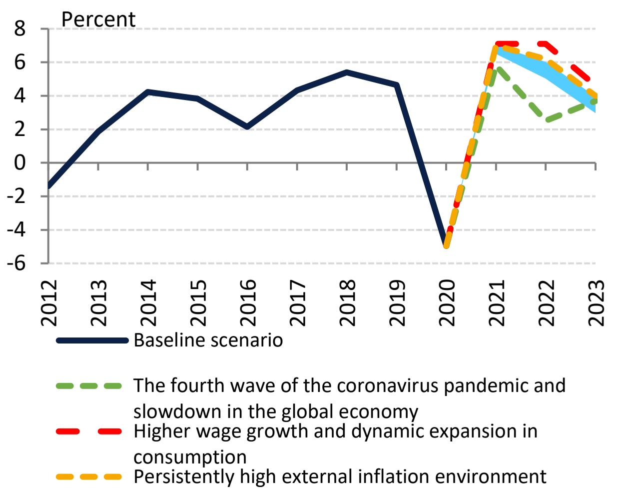
The fourth wave of the coronavirus pandemic and slowdown in the global economy

The fourth wave of the coronavirus pandemic has already started in some countries. The spread of the Delta variant of the virus has affected Asian countries the most. In addition to Malaysia and Thailand, rapid increases in the number of cases have been observed in Vietnam and China as well. Containment measures have also been introduced in Australia and New Zealand in view of the deterioration in the pandemic situation. Moreover, coronavirus cases have risen in the United States, Israel and many European countries as well. For the time being, the daily number of new infections is low in the countries of the region, although it has been on an upward trend in recent weeks.

if new variants spread rapidly, economies may be closed down again, but in view of the wide availability of vaccines, the probability of persistent and protracted waves of pandemic that require restrictions such as those seen during the previous waves is lower. This is corroborated by the fact that in the countries already affected (e.g. Israel and the United Kingdom) the rise in the number of cases has not entailed renewed closures of the economies.

In the course of the recovery from the earlier downturn, one risk is that the current degree of upturn varies across sectors. Global industrial production already exceeded the pre-crisis level in September 2020 and has remained above that since then. At the same time, the recovery in the services sector was only able to commence at a much slower pace. As a result of a persistent downturn in air traffic, the recovery in international tourism is expected to be slow, which points to a sluggish recovery in services

Chart 2-2: Impact of alternative scenarios on the GDP forecast



Source: MNB

exports. All of this may significantly restrain recovery in those economies where tourism has a considerable weight.

In our baseline scenario, as a result of increasing vaccination coverage, we do not expect lockdowns similar to the previous ones to take place due to the fourth wave of the virus. The global economy remains on the path of recovery. Declining uncertainty and increasing confidence will contribute to the restoration of air traffic, and thus global tourism will gradually return to its previous level. The world's leading central banks will start to normalise monetary conditions with the intensive improvement in prospects.

In the alternative scenario, a fourth wave of the pandemic has a strong negative impact on the real economy, and thus the recovery temporarily stops both globally and in the Hungarian economy before continuing at a slower pace. External demand in services, which is slower than expected, and the more subdued inflation environment exert a lasting, significant effect on inflation and growth in Hungary, which may necessitate looser monetary conditions.

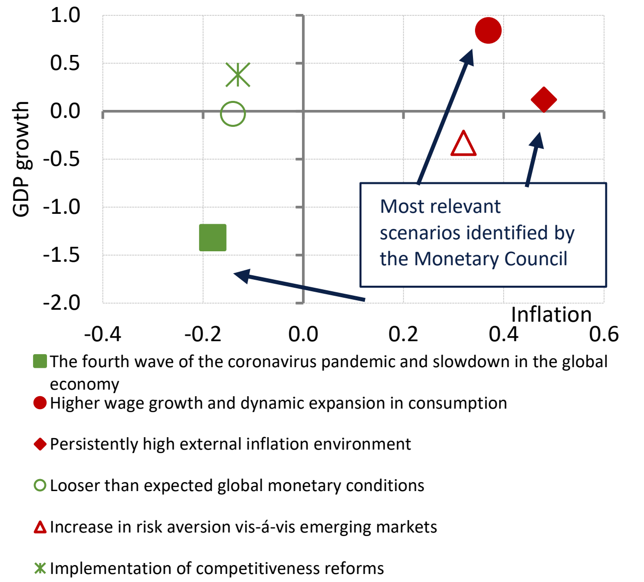
Higher wage growth and dynamic expansion in consumption

During the second and third waves of the pandemic, the labour market proved to be more resistant than during the first wave. Central bank and government measures (loan repayment moratorium, wage subsidies) also contributed to this.

The developments in gross average earnings in the domestic private sector have been highly volatile in 2021, but on the whole wage dynamics have remained strong. In January–April 2021, wages rose 8.6 percent year on year, whereas the wage index amounted to 6.4 percent in June. The relatively slower wage growth is attributable to significant statistical distorting effects. Firstly, in May of last year, due to the outbreak of the coronavirus pandemic, in addition to lay-offs, many firms tried to adapt to the changed circumstances by reducing the number of working hours. Secondly, several companies postponed the March and April wage changes last year to a later date, adding to the regular earnings in May of last year. These effects, which are expected to fade out by the end of the year, resulted in a temporary slowdown in regular wages.

Following the outbreak of the coronavirus pandemic, last year and this year wage growth declined primarily in sectors with high propensity to consume, which pay below the average wage. While the wage dynamics seen between 2017 and 2019 in the sectors that pay above the average

Chart 2-3: 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

wage practically persisted, wage growth declined by more than 5 percentage points in the lower-paying sectors. Thus, the favourable developments in wages are perceived by those with lower earnings to a lesser degree, as their propensity to consume as a proportion of their income is much higher. Accordingly, the slowdown in wage dynamics may also affect the pace of recovery of household consumption. All of this represents a risk in the short run, but the tight labour market conditions and the Government's PIT easing programme support the recovery in demand.

In the baseline scenario, labour market tightening may contribute to renewed strengthening in wage growth. In addition to a decline in the number of unemployed, demand for labour is gradually increasing in parallel with the recovery from the pandemic situation. Consumption is growing gradually, simultaneously with the recovery of demand.

According to the assumptions of our alternative scenario, corporate labour demand will remain permanently high, and thus, as a result of the tighter labour market environment, **there will be faster wage increases in the coming years compared to the assumption in the baseline scenario** across the whole private sector. Compared to the baseline scenario, **expansion in consumption may be persistently higher, resulting in a higher inflation path**.

Persistently high external inflation environment

Reopening of the economies started from 2021 Q2, with the pace was influenced by developments in the pandemic situation and the level of public vaccination coverage. The more favourable economic outlook was reflected in improving confidence indicators, rising inflation expectations as well as in the changes in commodity prices.

In parallel with the expected dynamic increase in consumption and investment activities by households and the corporate sector, several countries have maintained their respective economic stimulus programmes introduced during the pandemic situation, and thus fiscal policy may remain demand-stimulating in the European Union, the United Kingdom and the United States as well. Nevertheless, current expectations suggest that the deficit will decline considerably in the major economies in 2022.

At the same time, global value chains may recover more slowly than demand, which may result in mounting cost pressure in global forwarding and industrial production. The cost of shipments from China to Europe were eight times higher in early August 2021, compared to the June 2020 level. It is presumed that merchants will shift some of the ensuing additional costs to consumers, and thus the inflationary effect of the significantly higher transportation costs may later be reflected in domestic consumer prices as well. In view of the rapid recovery in demand, the global shortage of chips caused disruptions in industrial production (especially in the automotive industry), which affects prices as well.

Prices of major commodities increased significantly worldwide in the first half of 2021. Nevertheless, a correction was already observed in the changes in the prices of some major commodities from June. On the whole, however, prices considerably exceed the levels observed prior to the coronavirus pandemic. Prices of agricultural products may remain persistently high, partly as a result of disruptions in global value chains.

The rise in commodity prices is attributable to the upswing in demand due to the recovery as well as to market expectations. The latter factor contributes to price rises caused by demand. In many commodity markets, reopening of the economies drove prices upwards thanks to burgeoning demand for certain products. **Market speculation may contribute strongly to a further increase in commodity prices.** If the global rise in inflation expectations is accompanied by further speculative commodity price increases, that will be an obstacle to global economic growth in the longer run.

Reflation concerns may become included in long-term inflation expectations, resulting in a persistent increase in inflation. Although the inflationary effects entailed by reopening as well as the global increase in commodity prices and transportation costs may separately be considered as temporary factors, there is a risk that the ensuing higher price dynamics become included in economic actors' expectations, as a result of which the current high inflation environment may persist. Trends in market indicators capturing long-term inflation expectations may indicate this: by mid-May 2021, 5-year inflation expectations 5 years ahead had advanced well higher than the 2-percent target in the USA. Then, following a gradual decline, this indicator was rising modestly again from end-July. In the past months, 5y5y inflation expectations increased on the whole in the euro area, thus standing above the level of 1.5 percent at present, although they still fall significantly short of the 2-percent level targeted by the ECB.

In the baseline scenario, in parallel with reopening of the economies, the external inflation environment is expected to increase moderately, contributing to domestic inflation only slightly.

In our alternative scenario, reflation risks materialise: global commodity prices rise persistently further with further improvement in external demand. In addition to the global recovery and a pick-up in demand, market expectations also play a role in their increase. If this alternative path materialises, the external inflation environment will be higher than expected, which will feed through into domestic prices. If the rise in domestic inflation proves to be permanent, tighter monetary conditions may be justified compared to the baseline scenario.

Other risks

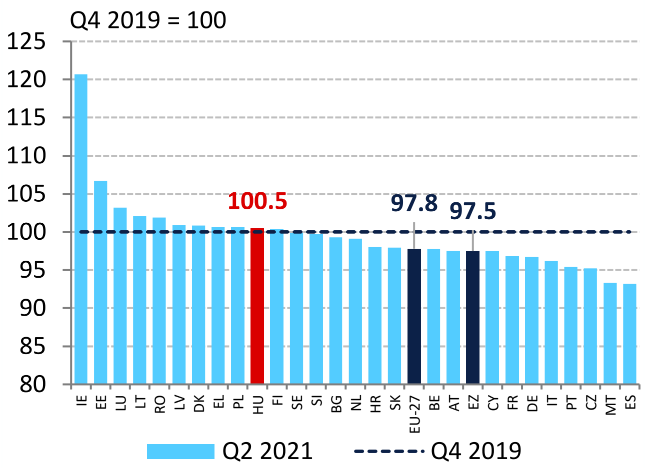
In addition to the scenarios highlighted above, the Monetary Council considered three other alternative scenarios. According to the scenario that presumes looser-than-expected global monetary policy conditions, the monetary policy stance of the world's leading central banks may remain permanently loose, as the rise in inflation proves to be temporary in line with their expectations. In the euro area, lower inflation results in an increase in the interest rate spread and domestic asset prices. In the scenario featuring an increase in risk aversion vis-à-vis emerging markets, in the uncertain economic environment evolving in connection with developments in the coronavirus pandemic, the FX and bond markets of the emerging economies deemed to be riskier may come under selling pressure, entailing a rise in long-term yields and a weakening of the exchange rate in the more vulnerable regions. Weakening exchange rates suggest a higher inflation path via increases in the prices of imported products. In the scenario assuming the implementation of competitiveness reforms, the improvement in competitiveness provides further stimulation to the domestic economy primarily from the supply side. Competitiveness may improve to a greater degree compared to the assumption in the baseline scenario if further proposals are implemented out of the 330 steps presented by the Magyar Nemzeti Bank for improving competitiveness. Implementation of the targeted measures leads to a major increase in productivity, resulting in a lower cyclical position in the domestic economy. This is consistent with a lower inflation path and higher economic output.

3. Macroeconomic overview

3.1. Evaluation of the international macroeconomic developments

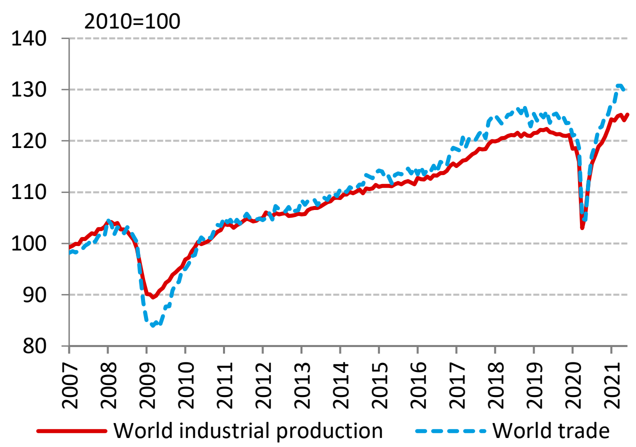
In 2021 Q2, as a result of last year's low base, buoyant growth in GDP was observed in most economies, but the recovery of countries showed different patterns. Most EU countries have not yet reached their pre-crisis economic performance. Recovery is typically slower in the countries where the weight of tourism is greater within the gross national product. The measures taken in order to contain the latest waves of the coronavirus pandemic restrained industrial production to a lesser degree. At the same time, business and household confidence indicators in many countries show that expectations take into account the spread of the Delta variant, and uncertainty increased as a result of the disruptions in supply chains (e.g. shortage of chips). On the whole, central banks continued their supportive monetary policies in the past period, although several central banks started to tighten their monetary conditions, while the timing of the deceleration of asset purchases was brought into focus in the case of the world's leading central banks.

Chart 3-1: Development of GDP level



Note: Based on seasonally and working day adjusted data.
Source: Eurostat, Trading Economics

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



Note: Based on seasonally adjusted data.
Source: CPB

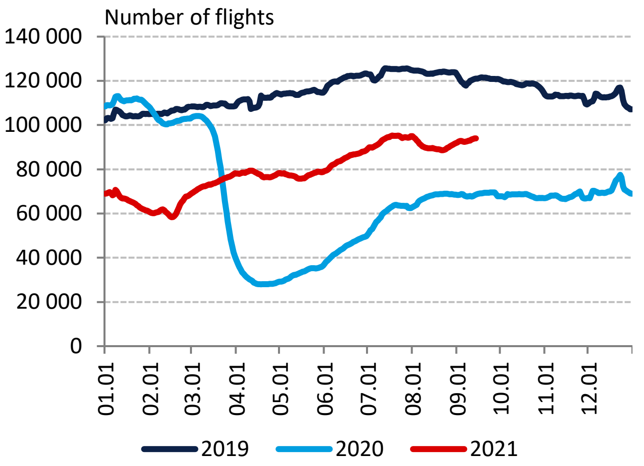
3.1.1. International activity trends

In 2021 Q2, as a result of last year's low base, considerable growth was recorded in most economies. Economic performance in the United States and China exceeded the levels observed in 2020 Q2 by 12.2 percent and 7.9 percent, respectively. Unlike in the two largest economies of the world, GDP in the European Union remains below its pre-crisis level. Compared to the same period of 2020, in Q2 the EU and the euro area grew by 13.8 and 14.3 percent, respectively. The pace of recovery varies across European countries: the economies of Ireland (where there was not even any recession on the basis of the latest data), Estonia and Luxemburg exceed the levels seen in 2019 Q4 to the greatest degree. By contrast, Spain and Malta fall more than 6 percent short of those levels. The countries in Hungary's region also show a mixed picture. The Romanian economy already exceeded its pre-crisis level by 1.9 percent, while the performance of the Czech economy was still 4.8 percent below that in 2021 Q2 (Chart 3-1).

Trends in economic performance have been determined by the coronavirus pandemic and the related containment measures for the last one and a half years. Industrial production was typically less restrained by the second and third waves of the pandemic, but the services sector is still exposed to the containment measures.

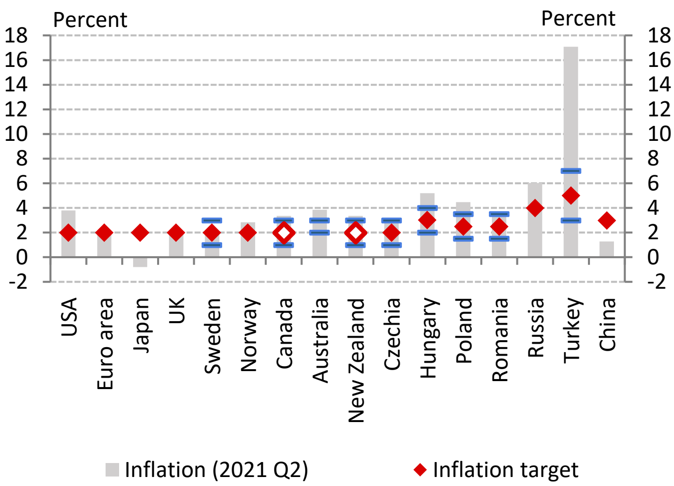
Global industrial production already exceeded the pre-crisis level in September 2020 and has remained above that since then (Chart 3-2). Nevertheless, industrial production in several countries is being hindered by the global shortage that evolved in the market of

Chart 3-3: Total number of global commercial flights



Note: The index is based on 7-day moving averages.
Source: Flightradar24

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 empty diamond.
Source: OECD, FRED, National Institute of Statistics Romania

semiconductors, posing a downside risk looking ahead as well.

In the area of services, tourism is still one of the most exposed sectors. The prospects of the sector improved in parallel with the increase in vaccination, but the recovery is still expected to be slow. Slightly increasing from March, the daily number of commercial flights was around 94,000 at mid-September, which is still well below the 2019 data (Chart 3-3). On the whole, the current situation at the international level for both industry and services may be slightly more favourable than previously expected. At the same time, business and household confidence indicators in various countries show that expectations take into account the spread of the Delta variant, and uncertainty increased as a result of the disruptions in supply chains (e.g. shortage of chips).

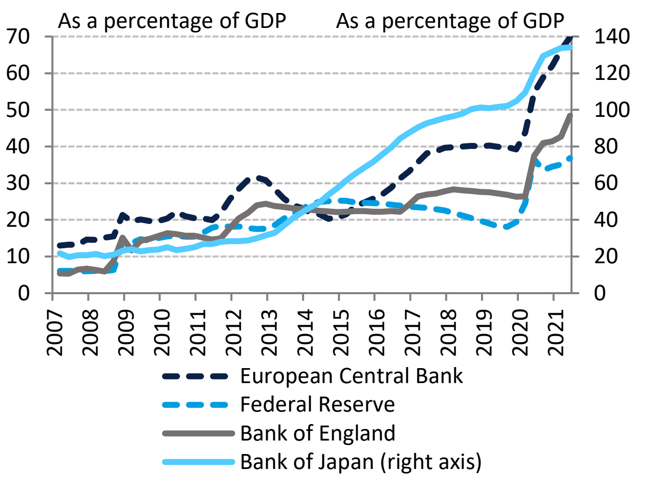
3.1.2. International monetary policy, inflation and financial market trends

Global inflation continued to increase in recent months. In Q2, inflation rates in the majority of the developed economies were close to central bank targets or even exceeded them in several cases (Chart 3-4). As a result, the timing of monetary policy tightening has become a key question for more and more central banks.

Inflation advanced to 3 percent in the euro area in August. Starting from January, the price index gradually approached the 2-percent target from the negative range registered at the end of last year and has exceeded the target since July. Core inflation in the past period was at subdued levels, amounting to 0.7 percent year-on-year in July. In August, core inflation increased to 1.6 percent, a level that exceeded market analysts' expectations.

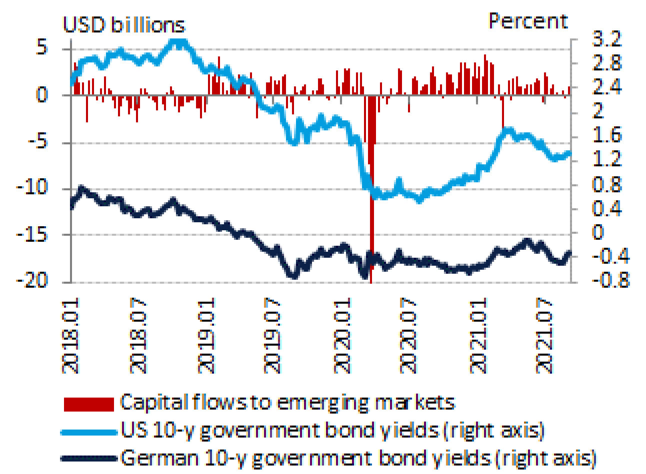
The Governing Council of the ECB left the key rates unchanged in September, but announced that it would continue its purchases under the Pandemic Emergency Asset Purchase Programme (PEPP) at a slightly lower pace than in the previous two quarters. According to the current guidelines, purchases under the PEPP programme will continue to be flexible and will continue until at least March 2022 or until the negative effects of the coronavirus are present. Higher-than-expected inflation in the euro area is typically still considered by ECB decision-makers to be temporary. The balance sheet total of the ECB rose to EUR 8,208 billion (72.5 percent of GDP) by mid-September (Chart 3-5). In

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



Source: Databases of central banks, Eurostat, FRED

Chart 3-6: Capital flows to emerging markets (weekly) and US and German 10-year government bond yields



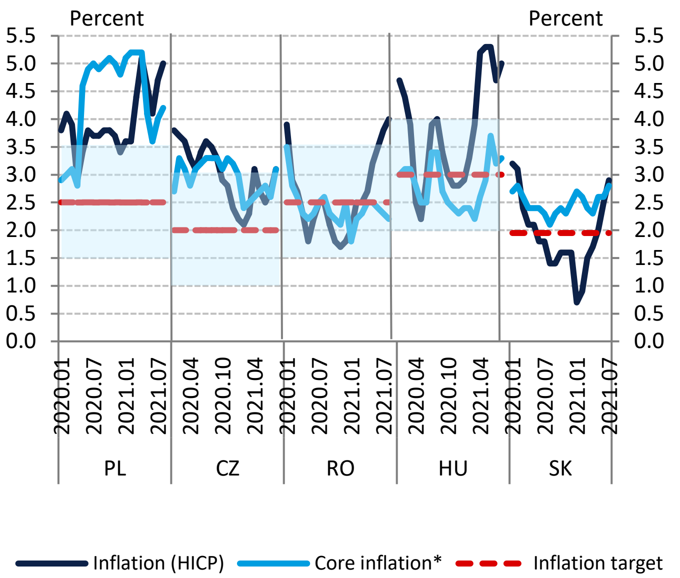
Source: EPFR, Bloomberg

line with the new strategic framework, the ECB will keep the policy rates at the current or lower levels until inflation reaches the inflation target well before the end of the forecast horizon and permanently remains close to the target until the end of the forecast horizon, and until underlying inflation trends comply with the medium-term stabilisation of inflation at 2 percent. In the interests of achieving this, it is possible that inflation may temporarily and slightly exceed the inflation target.

At the July rate-setting meeting, by unanimous decision, the decision-makers of the Federal Reserve left the target band of the policy rate unchanged at a level of 0–0.25 percent. Fed Chairman Jerome Powell said that at the next meetings the Fed's decision-makers would examine whether incoming data make it necessary to amend the pace and composition of asset purchases. According to the central bank, financial conditions remained loose, but the purchases of government securities and mortgage-backed securities will continue at the rate seen to date. The balance sheet total of the central bank rose to USD 8,407 billion (38.1 percent of GDP) by mid-September. The consumer price index rose to 5.4 percent in June and remained at that level in July, subsequently falling to 5.3 percent in August. The PCE inflation rate, which is closely monitored by the central bank and better reflects consumer spending, rose to 4.2 percent in July. According to the Fed's decision-makers, inflation is raised mostly by temporary effects that affect a narrow range of products, although it may be more persistent compared to previous expectations.

At the Bank of Japan's rate-setting meeting in September, policymakers did not change the interest rate conditions. The lending stimulus programme, launched in April 2020, is expected to continue with unchanged parameters until March 2022. The balance sheet total of the central bank increased to 135.4 percent of GDP in mid-September. The forward guidance has not changed; the Bank of Japan is closely monitoring the impact of the coronavirus pandemic, and, if necessary, is ready to take further easing steps in addition to the measures already implemented. As a result of a review of the framework, the Bank of Japan declared that it would maintain the quantitative and qualitative easing complemented with yield curve control, and determined the deviation of the 10-year Japanese government bond yield from 0 percent as ±25 basis points. At its June meeting, the Bank of Japan announced that this year it would introduce a new fund-providing measure in order to mitigate the unfavourable

Chart 3-7: Inflation and core inflation in the region



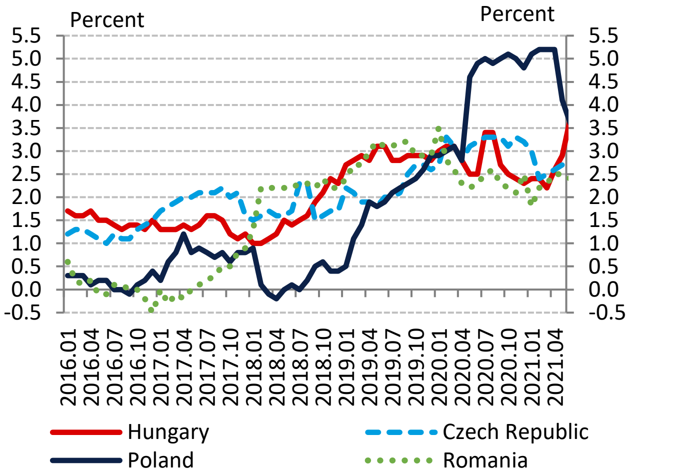
Note: Annual change, percent. *In the case of core inflation, we use the definition of the Eurostat (inflation excluding energy, food, alcohol and tobacco). The blue area indicates the tolerance band around the inflation targets.
Source: Eurostat

impacts of climate change with the intention of supporting the climate protection efforts of the private sector.

At the Bank of England's rate-setting meeting in August, the decision-makers left the Bank Rate unchanged and also did not modify the parameters of the government securities and corporate bond purchase programmes. Inflation fell from a three-year high of 2.5 percent in June to 2 percent in July and then rose to 3.2 percent in August. During the previous period, core inflation fell from 2.3 percent to 1.8 percent and then rose to 3.1 percent. According to the forecast of the Bank of England, inflation will temporarily rise to 4 percent in the next quarters. Following that, in parallel with a decline in demand and an easing of supply constraints, inflation will return to the 2-percent target. According to the guidance, the Bank of England plans to start reducing the central bank balance sheet when the Bank Rate reaches the level of 0.5 percent.

Financial and capital market sentiment has been volatile. In the first half of the period since June, market sentiment deteriorated slightly due to the spread of the Delta variant and the related introduction of stricter containment measures. Nevertheless, investors' risk appetite improved as a result of macroeconomic data released in the second half of the quarter and the continued supportive US monetary policy. Global investor sentiment continues to be determined by the changes in the pandemic situation and within that by the increase in the number of cases of the fourth wave observed in many countries. Supply-side capacity constraints and supply difficulties led to problems in satisfying the increasing demand of reopening economies, while surges in transportation costs and time as well as rising commodity prices posed difficulties for international trade. Recently published economic forecasts, incoming actual figures and leading indicators continue to paint a favourable economic picture, but the signs of the rebound seen after the pandemic are starting to weaken. By contrast, inflation data, which were above expectations, had an unfavourable impact on global financial market sentiment. Adjustment was already observed in the prices of some major commodities in the past months, while the price of oil fell as a result of the concerns about Chinese demand and the risks related to the spread of the Delta variant, as well as geopolitical tensions, although the oil price adjusted in recent weeks. On the whole, sentiment was changing in the financial markets in the past quarter: financial market volatility decreased

Chart 3-8: Developments of inflation excluding energy, food, alcohol and tobacco in the countries of the region



Source: Eurostat

slightly, while the majority of both developed and emerging market stock exchange price indices rose. Leading US and European stock exchange price indices advanced some 3–6 percent, reaching new historical highs. The US dollar tended to slightly strengthen against both the developed and emerging currencies, thus appreciating by 1.3 percent and 1 percent against the euro and the pound sterling, respectively, while it weakened slightly against the Japanese yen. Developed market long-term bond yields declined: the US 10-year yield dropped by nearly 20 basis points, while German yields dropped by 10 basis points (Chart 3-6). Emerging market bond yields increased, including long-term yields in the region.

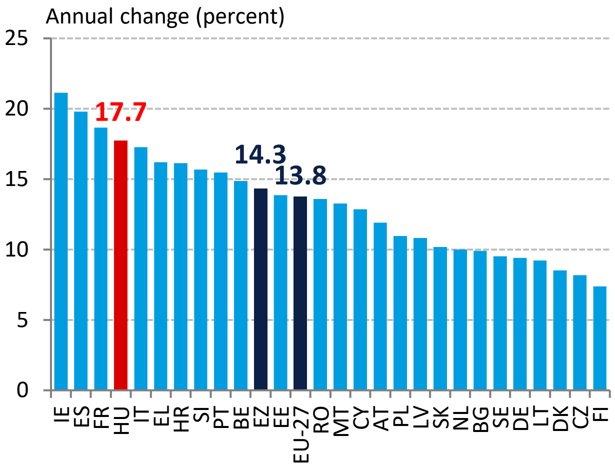
The market continues to expect steadily loose monetary policies from the developed central banks. Based on market pricing, the Fed may start raising its interest rate level at the beginning of 2023, which is a slightly later date compared to the mid-June expectations. Market pricing suggests that the ECB's current interest rate conditions may become tighter in 2024 H2, and thus market participants are pricing in the possibility of an interest rate hike for a later date compared to the mid-June expectation.

In line with the previous guidance, the Czech National Bank raised the policy rate by 20–25 basis points in June and August each, to 0.75 percent. Following two months of decline, inflation in the Czech Republic rose from 2.8 percent in June to 3.4 percent in July and 4.1 percent in August. CNB Governor Jiří Rusnok said that they were ready for further interest rate hikes at the next meetings. At its rate-setting meeting in July, the Polish central bank kept the base rate at 0.1 percent and also did not change the parameters of the government securities purchase programme. Following a decline in June, inflation in Poland rose to a 10-year high of 5 percent by July, before advancing to 5.5 percent in August. The Romanian central bank also did not change its monetary policy stance, but considerably increased its short- and medium-term inflation forecasts as well. In Romania, inflation rose to 5 percent in July and then to 5.3 percent in August. Over the past three months, the Harmonised Indices of Consumer Prices has continued to rise in all countries in the region. In Poland, the HICP rose from 4.1 percent in June to 4.7 percent in July and then to 5.0 percent in August. In the Czech Republic, the harmonised index of consumer prices rose from 2.5 percent in June to 2.7 percent in July and then to 3.1 percent in August. In Romania, HICP levels have also risen further over the past three months. The harmonised index of consumer prices advanced from 3.5 percent in June to 3.8 percent in July and 4.0 percent in August (Chart 3-7). Over the past three months, core inflation has also typically increased in the countries of the region, with Romania alone declining (Chart 3-8).

3.2. Analysis of the production and expenditure side of GDP

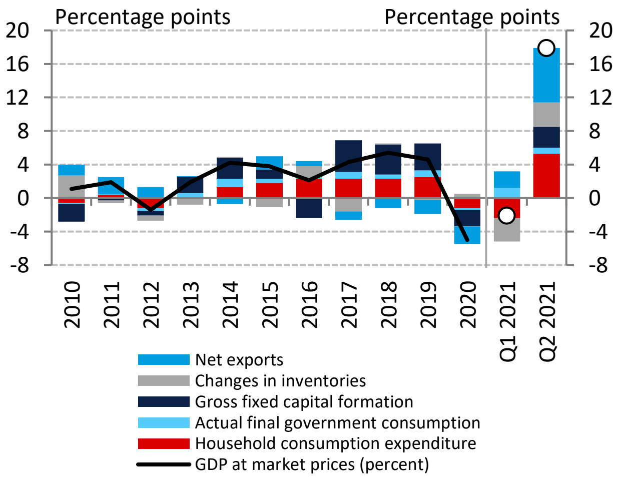
The performance of the Hungarian economy rose 17.9 percent in 2021 Q2 in year-on-year terms, and thus the Hungarian economy restarted successfully. Due to the fast recovery, in the second quarter the level of GDP already slightly exceeded its 2019 Q4 value. In addition to manufacturing, the recovery of services also contributed to the economic performance. Construction performance has been improving continuously since Q3 of last year. From the expenditure side, all items contributed to the year-on-year growth, with net exports and household consumption making the strongest contributions. High-frequency data confirm the duality observed in economic performance. Recovery of the production sectors and some leisure time services continued, whereas the recovery of tourism subsectors is taking longer.

Chart 3-9: 2021 Q2 annual GDP change in EU countries



Note: Seasonal and calendar-adjusted figures.
Source: Eurostat

Chart 3-10: Contribution to annual changes in GDP



Note: Actual final government consumption includes social transfers in kind from government and NPISHs.
Source: HCSO

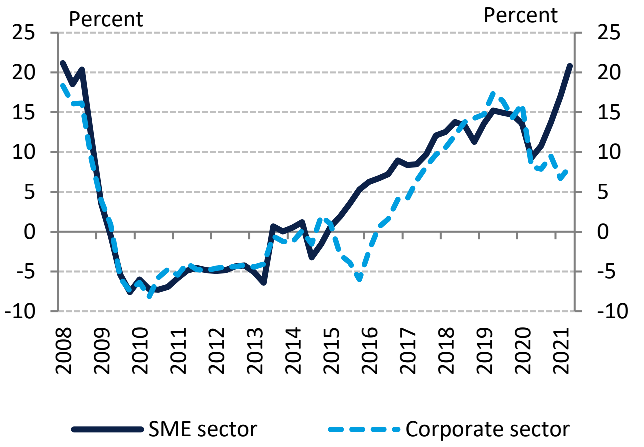
In 2021 Q2, Hungary's gross domestic product expanded by 17.9 percent in year-on-year terms, thus reaching its pre-crisis level. Seasonally adjusted GDP grew by 2.7 percent compared to the previous quarter. The Hungarian economy restarted successfully. From the middle of the quarter, the earlier containment measures were gradually lifted, and the related positive effects were already felt in this period. The seasonally adjusted growth in Hungarian economic output (+17.7 percent) was higher than the averages of the euro area (+14.3 percent) and the European Union (+13.8 percent), and thus real economy convergence continued in 2021 Q2 (Chart 3-9).

From the expenditure side, all items contributed to the year-on-year growth, with net exports and household consumption making the strongest contributions. Investment rose, which was mainly attributable to the corporate sector, while public investment remained practically stagnant. Unlike in the previous two quarters, changes in inventories had a tangibly positive effect, to which the global shortage of chips may also have contributed. Government consumption increased significantly, expanding by 3.2 percent. The contribution of net exports to economic growth amounted to 6.5 percentage points, with important roles played by improvements in both goods and services trade (Chart 3-10).

Households' consumption expenditures increased by 10.6 percent in year-on-year terms. The partial recovery of the consumption of services following the lifting of containment measures was the main contributor to the expansion in consumption. Growth was also supported by labour market developments, which proved to be resilient last year, rising wages and employment as well as by households' savings rate, which moved on a downward path after economic reopening.

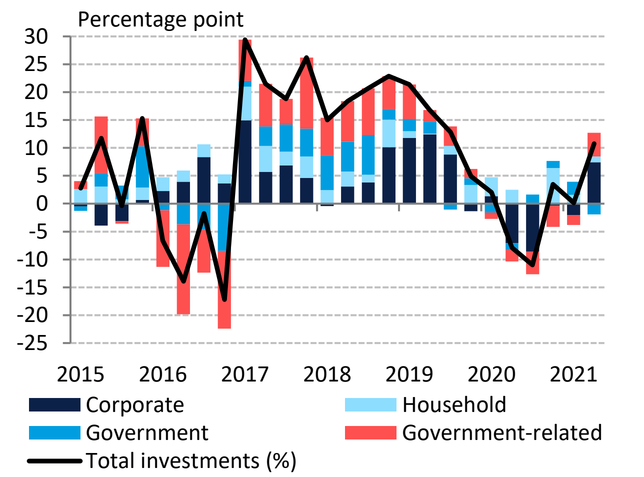
The disbursements of housing loans reached a historical high during the quarter. In 2021 Q2, household loans outstanding vis-à-vis the entire financial intermediary system expanded by HUF 421 billion as a result of transactions, and thus household loans outstanding

Chart 3-11: Annual changes 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

Chart 3-12: Decomposition of annual change in investments

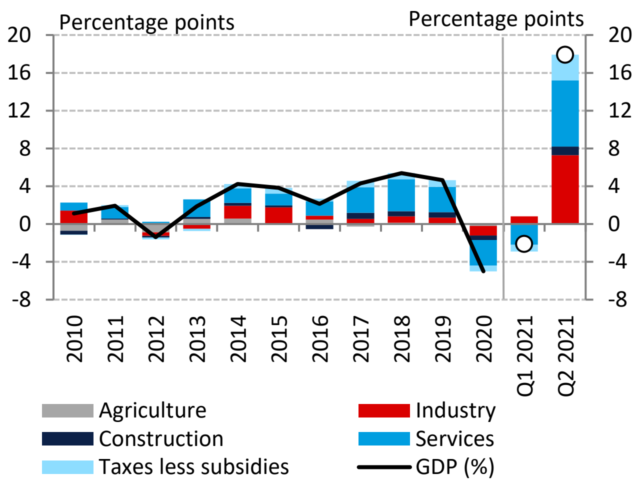


Source: HCSO

increased by roughly 15.3 percent between July 2020 and June 2021. The expansion in loans outstanding was strongly supported by the decreased principal amortisation due to the payment moratorium, the record volume of housing loans disbursed and the still-high level of prenatal baby support loans granted. During the quarter, young married couples concluded prenatal baby support loan contracts amounting to HUF 151 billion, and thus the amount of prenatal baby support loans outstanding climbed to HUF 1,334 billion, accounting for more than 15 percent of the household loans outstanding of the credit institutions sector. The disbursements of personal loans still falls short of its pre-pandemic level, while the volume of housing loans granted reached a historical high in Q2, exceeding the figure for the same period of 2019 by 44 percent. The new home purchase subsidies available from 2021 contributed significantly to the outstanding lending for housing. In addition, the rise in housing prices as well as demand brought forward, which appeared in the credit market in relation to expectations of home price appreciation and interest rate hikes, may also have had an impact on the volume. In line with normalisation of the credit market, according to the Lending Survey, there were no major changes in the standards of housing loans in 2021 Q2, whereas the conditions of consumer loans were eased by banks. Responding institutions perceived an upswing in demand for both housing and consumer loans, and expect a further upturn for 2021 H2 as well, due partly to the new government programmes that started in 2021 for the housing market and partly to the increased demand for the pre-financing of the home improvement subsidy.

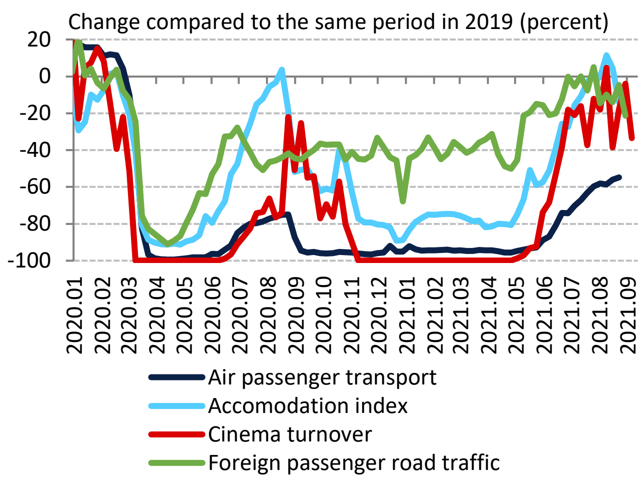
Corporate loans outstanding grew moderately, but, within that, SME lending expanded dynamically in Q2. In the balance sheet of the entire financial intermediary system, corporate loans outstanding increased by HUF 37 billion in 2021 Q2, and thus the annual growth rate amounted to 8.2 percent (Chart 3-31). Within corporate lending, the annual growth rate of SME loans outstanding was 21 percent in June, strongly supported by contracts amounting to some HUF 630 billion concluded during the quarter within the framework of the FGS Go!. Expansion across sectors showed a heterogeneous picture in 2021 Q2: the largest increase in loans outstanding occurred in the real estate sector, while the largest decrease was registered in the manufacturing sector. In net terms, 56 percent of the banks participating in the Lending Survey reported rising demand in the quarter. Responding credit institutions experienced an upswing in demand in all company size categories as well as in the case of commercial real estate loans and shorter-term and longer-term loans, and expect

Chart 3-13: Decomposition of change in production-side GDP



Source: HCSO

Chart 3-14: Indicators of tourism demand



Source: Budapest Airport, Association of Movie Distributors, NTPS Plc. Business Intelligence, MNB estimation based on HCSO and Hungarian Tourism Agency

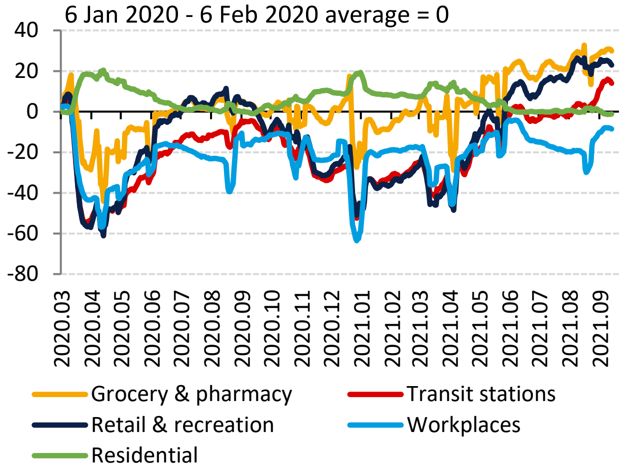
a further upturn in demand in the next half year as well. Although the FGS Go! ran out of the allocated amount in the summer months, the gradual and continuous drawing of the contracts concluded within the framework of the scheme will support the SME credit market even after the closing of the scheme in 2021, while the expanded Széchenyi Card Programme (SZKP GO!) also has a favourable impact on SME funding.

In Q2, the volume of whole-economy investment increased by 10.8 percent in year-on-year terms according to investment statistics (Chart 3-12). The volume of investment in machinery and equipment rose significantly, whereas that of construction investment expanded to a lesser degree on an annual basis. In 2021 Q2, budgetary organisations' investment was practically stagnant, but investment in the (quasi fiscal) sectors indirectly linked to the state, as well as corporate and household investment rose in a year-on-year comparison.

On the production side, the performance of most sectors in the national economy expanded compared to both the same period of the previous year and to the previous quarter (Chart 3-13). As a result of the base effect, year-on-year growth was highest in the sectors that had suffered the sharpest decline during the first wave of the pandemic (industry, accommodation services). At the same time, only industry, construction and some services subsectors (information and communication, finance) were able to exceed their pre-crisis performance by Q2. Construction output has been improving since the third quarter of last year, while in the majority of the services subsectors this process started in the first quarter of this year.

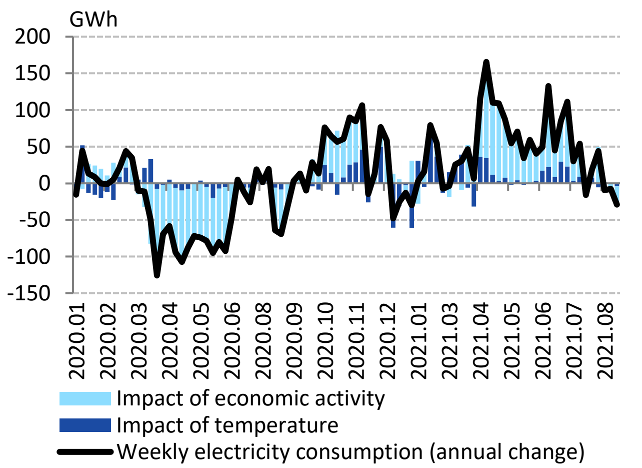
Activity in the tourism sector has been depressed since the introduction of the containment measures in November 2020, but an upswing is seen in the entertainment industry (Chart 3-14). In Q2, the number of nights spent in commercial accommodation was 73 percent below its level from two years ago. In July, the number of nights was still below its pre-crisis level, the turnover decreased by 36 percent compared to July 2019. Demand of domestic origin for accommodation already reached 89 percent of the turnover seen two years ago in July, while the number of foreigners' overnight stays dropped to just 30 percent of the level observed in July 2019. Based on high frequency data, however, in the past period tourism turnover reached the level recorded two years earlier. With the easing of restrictive measures, domestic tourism demand rose quickly after the second wave, but the recovery of international tourism might even last for years, possibly also influenced by changes in consumption and travelling

Chart 3-15: Evolution of the Google Mobility Index in selected sectors



Note: 7-day moving averages.
Source: Google

Chart 3-16: Annual change in weekly electricity consumption



Source: MNB estimation based on ENTSO-E

habits due to the pandemic. Utilisation of cultural spaces can be approximated by attendance at cinemas, where the number of cinema-goers increased gradually with the lifting of the containment measures at the end of April this year, and by mid-August the turnover had reached the level seen two years ago. According to the traffic statistics of Budapest Airport, the number of passengers started to increase slowly from end-May, but turnover at end-August was still more than 50 percent below the level for the same period of 2019. In April of this year, the number of foreigners arriving on public roads was still 50 percent below the level seen two years previously, but – following a gradual rise – it was already close to the 2019 turnover level starting from July.

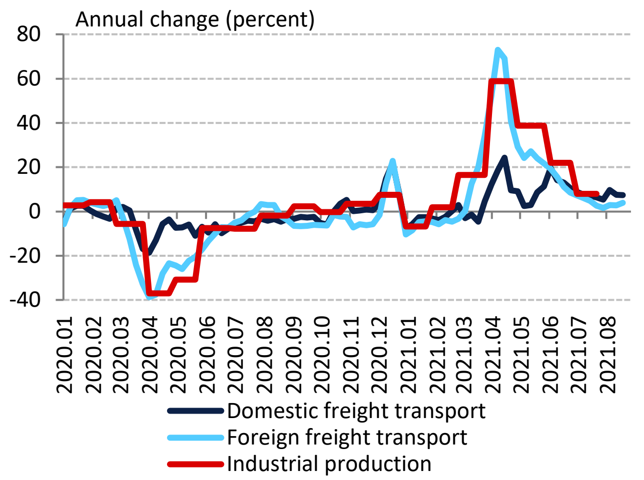
Retail sales still show no signs of recovery. In July, retail sales increased 2.5 percent year-on-year, but the volume of retail trade still fell short of the pre-crisis level, moving on a stagnating or slightly declining trend for months. Nevertheless, according to online cash register data, which cover a wider range of services, nominal turnover already exceeded the level recorded two years before in the majority of retail segments (including the catering industry). Google mobility indices indicated a slight rise in sales at retail shops and recreation establishments as well as in grocery and pharmaceutical purchases in recent months. Transit station and workplace activity has been on the rise since the end of August, while activity linked to residential areas stagnated (Chart 3-15).

Also as a result of last year's low base, Q1 industrial production exceeded the level observed one year earlier by 37.6 percent, and was even higher than the highest output value in the pre-crisis period. The improvement in industrial performance continues to be mainly attributable to the rapid expansion in sectors producing for external markets. At the same time, in relation to the global semiconductor shortage, the volume of production was slightly lower in June and July compared to the previous month.

Energy consumption data suggest that industrial capacities survived the pandemic unscathed, with energy consumption typically exceeding last year's level since last autumn, partly in view of the low base (Chart 3-16). At the same time, with the end of the base effect, energy consumption has been close to the 2020 level since August, possibly indicating a decline in the growth rate of industrial production.

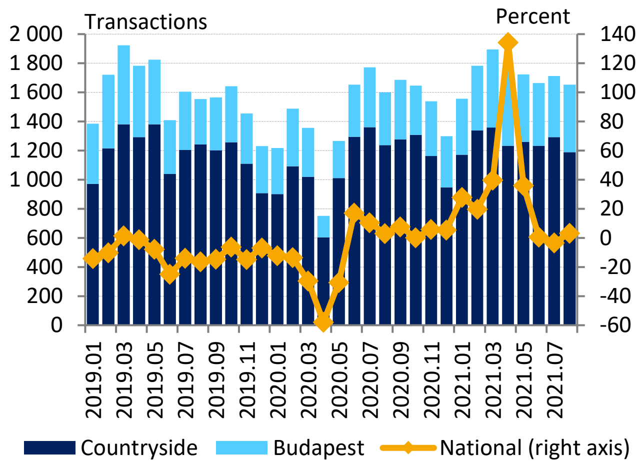
The volume of goods transport by road may provide a picture of developments in the performance of domestic industry and the logistics sector (forwarding,

Chart 3-17: Changes in road traffic and industrial production



Source: NTPS Plc. Business Intelligence, MNB calculation

Chart 3-18: Monthly transactions completed by housing market intermediaries



Note: Compared to the same period of previous year.

Source: Housing intermediary database

warehousing). Based on goods transport data, following strong growth in the spring, industrial production may have seen a moderate expansion at the annual level in the summer (Chart 3-17). Goods transport was slightly above last year's level by end-August, indicating less dynamic, but still favourable industrial activity.

In 2021 Q2, construction output increased by 13.9 percent in year-on-year terms. Development projects increased in both main groups. The volume of construction output grew on a monthly basis in May and June, and also came close to the pre-crisis level. However, compared to the previous month, output decreased slightly in July, falling by 0.4 percent. The end-of-month contract portfolio has been expanding at the annual level since November of last year.

According real estate agents' data, in 2021 Q2 the number of transactions increased significantly year on year, owing to the low base value. The number of transactions rose 87.0 percent in Budapest, 28.0 percent in the countryside and 40.2 percent at the national level in year-on-year terms, primarily due to the low base related to the outbreak of the pandemic in March of last year (Chart 3-18). Compared to the pre-pandemic period, i.e. to 2019 Q2, at the national level the number of sales and purchases rose by 2.5 percent, i.e. to a much lesser extent. In July and August 2021, the number of transactions did not change significantly year-on-year at the national level. According to the MNB housing price index, in nominal terms the prices of homes in 2021 Q1 increased by 8.2 percent at the national level, 2.9 percent in Budapest, 8.8 percent in the countryside and 10.8 percent in villages. Preliminary data suggest that housing prices rose further in 2021 Q2 both on a national average and in the capital, appreciating by 3.2 percent on a national average and by 4.4 percent in Budapest.

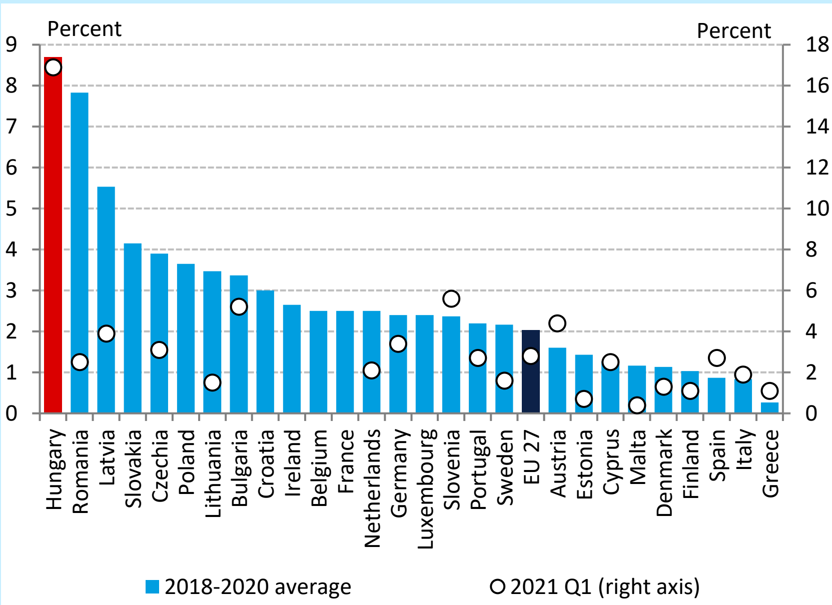
Box 3-1: Development of construction material prices

As a result of the demand and supply anomalies arising in connection with the coronavirus crisis, the prices of certain construction materials increased drastically. In addition to global factors, however, one-off effects also contributed to the rise in construction prices in Hungary in the past years (demand-expanding measures, capacity constraints). This box examines the factors behind these price increases.

The large rise in construction material costs is primarily attributable to the global production and supply problems following the coronavirus crisis. The recovery of economies resulted in a significant upturn in demand for raw materials, with supply unable to keep up. Restarting the factories that were stopped takes a longer time, and some of capacity-expanding investment projects may also have been postponed in view of the crisis. The significant demand for steel and raw materials of large investment projects in China had a strong draining effect, while the United States (and China) attempted to cover the major increase in demand for wood using European imports. These demand and supply anomalies resulted in drastic price increases for wood, steel, insulation materials and construction chemical products around the world, with shortages evolving in the case of certain materials. The impact of global developments was reflected in domestic construction prices as well. The significant price rises and supply constraints hinder the expansion in production, and all of this is taking place in a period when there is an extremely buoyant demand in the domestic market as a result of the Government's home creation measures.

However, global factors are not the only aspect behind the rise in prices. Price increases in Hungary were significant before the coronavirus crisis as well. Between 2018 and 2020, the construction cost of residential buildings in Hungary rose to the greatest degree (by nearly 9 percent) among the EU countries (Chart 3-19). The 2008/2009 crisis was followed by a decline in capacities in the Hungarian construction industry. As a result, when demand started to pick up again in recent years (partly in view of public investment and home creation subsidies), supply was unable to expand adequately. As a result of these developments, prices in the domestic construction industry started to rise prior to the global increase in commodity prices. Since 2015 the Government has been supporting access to housing for families with children primarily within the framework of the Home Purchase Subsidy Scheme for Families. Starting from 2021, it is helping to facilitate home creation with various new measures (reintroduction of the preferential VAT rate for residential properties, home improvement programme, duty exemption on the purchase of housing property and reclaimable VAT on housing if the Home Purchase Subsidy Scheme for Families is used). Nevertheless, demand-expanding measures have a price-increasing effect, generating demand for the products and services of the construction industry at higher prices as well, and thus construction companies benefit from some of the subsidies. In parallel with the stimulation of demand, relatively little attention was paid to supporting supply and boosting efficiency. According to the data available, in 2021 Q1 it was Hungary again where the rise in home-building costs was the highest. The nearly 17-percent price increase is considered extremely high compared to the 2.8-percent average observed across EU countries.

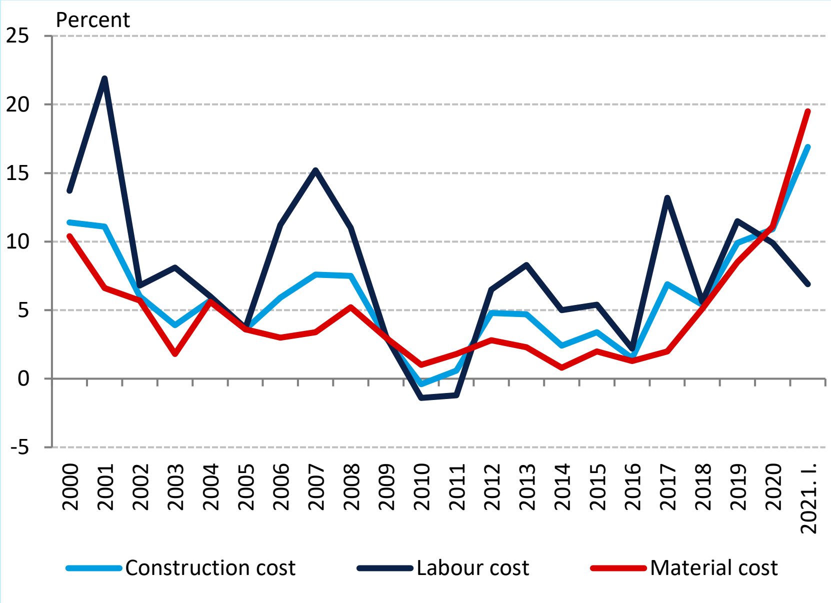
Chart 3-19: Annual changes in construction costs of residential buildings in EU countries



Source: Eurostat

The material cost of home-building rose by nearly 20 percent in 2021 Q1 (Chart 3-20). Over the past twenty years, labour costs were highly volatile, but typically increased to a greater degree than the cost of materials. In 2020, however, growth in material costs exceeded the growth in labour costs. In 2021 Q1, the growth rate of material costs was nearly three times higher than the growth rate of labour costs, resulting in an unprecedented rise in home-building costs.

Chart 3-20: Annual changes in construction costs of residential buildings



Source: HCSO

In July, the Government decided on various measures aimed at easing the supply problems and containing the increase in prices. Shortening the deadlines of mining and exploitation obligations as well as restrictions on exports of certain products (pebble, gravel, cement, certain insulation materials, iron and steel products) contribute to the expansion in the supply of construction materials, whereas the intention with the extra profit tax to be imposed on certain building materials (sand, pebble, gravel) is to reduce the rise in prices. Nevertheless, the introduction of export restrictions must be approved by the EU, which may take place in October at the earliest. Accordingly, until then it is mandatory to report the intended export, and the state may exercise its right of preemption. According to market information, partly as a result of the government measures, the shortage of base materials practically ceased to exist in Hungary in Q3. The world market price of some important base materials (wood, plastic, steel) started to decline in the past period, and households may also soon perceive this. Over the longer run, however, capacity problems and the increase in prices can only be mitigated by improving competitiveness and promoting projects that foster the development of supply.

3.3. Labour market

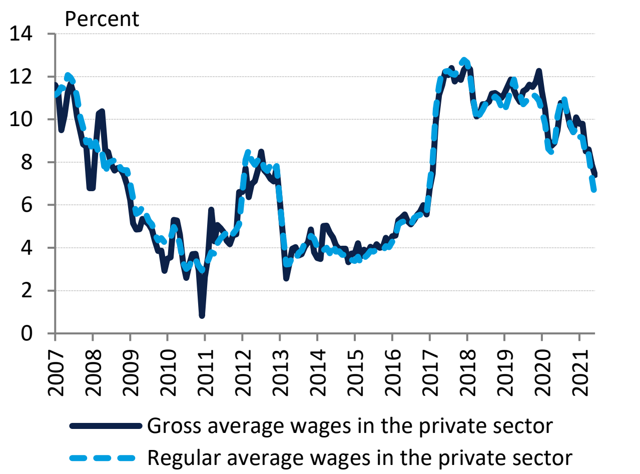
In 2021 Q2, gross average earnings in the private sector rose 7.4 percent in year-on-year terms. Statistical factors with a downward distorting effect are present in the wage index this year: after filtering these out, the gross average wage increased by 9.7 percent in the first half of 2021. In Q1, the average number of employed in the whole economy amounted to 4.619 million, up 63,000 on the same prior-year period. Recovery in the labour market started following after the repeated waves of the coronavirus pandemic began to fade and the economy was reopened, and the number of employed hit a historical high in July. Corporate prospects are positive and increases in headcount are planned in all the major sectors.

3.3.1. Wages

In 2021 Q2, gross average earnings in the private sector rose 7.4 percent in year-on-year terms, which is more than 1 percentage point below the average of the first quarter of the year. Regular average earnings rose 6.4 percent year-on-year, and bonus disbursements were not much different from the degree recorded in the previous year (Chart 3-21). Wages increased by 7–10 percent in year-on-year terms in most of the sectors, although wage growth was more moderate in the services subsectors most affected by the pandemic (accommodation and food service activities, other services) as well as among those engaged in financial and insurance activities.

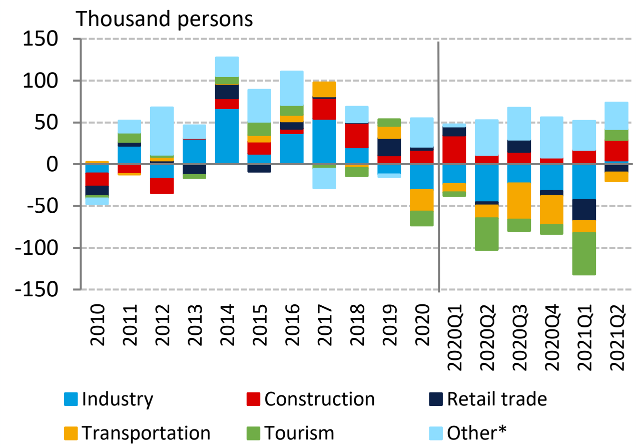
Downward distorting statistical effects are observed in the wage developments. During the first wave of the pandemic, part-time employment was high among those with low earnings, but the wage index only takes account of full-time employees, and this distorted the gross average earnings upwards. At end-2020, the ratio of part-time workers already fell to the pre-crisis level. As a result, due to last year's high base effect, the wage index is currently underestimated. Excluding statistical biases, private sector wages increased by 7.3 percent in the first quarter and by 12.1 percent in the second quarter compared to the same period last year.

Chart 3-21: Annual change in gross average wages in the private sector



Note: Quarterly moving averages.
Source: HCSO

Chart 3-22: Decomposition of annual changes in private sector employment



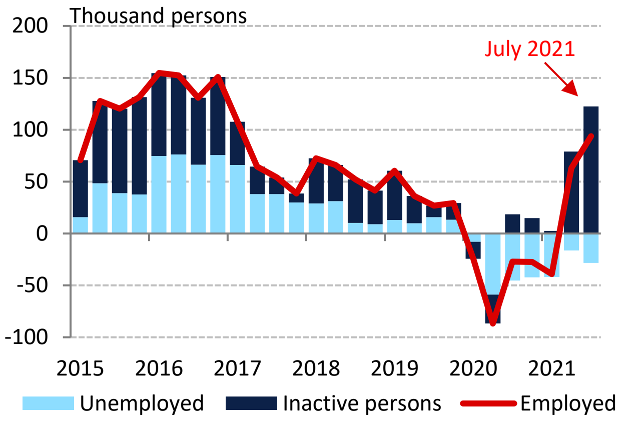
Note: *Agriculture, other industry and market sector branches.
Source: HCSO

3.3.2. Employment and unemployment

Recovery in the labour market started following the fading of the repeated waves of the coronavirus pandemic and the reopening of the economy. Central bank and government measures (loan repayment moratorium, wage subsidies) also contributed to this. 198,000 people benefited from the job protection wage subsidy, 166,000 people from the sectoral wage subsidy and 39,000 people from the job creation wage subsidy.

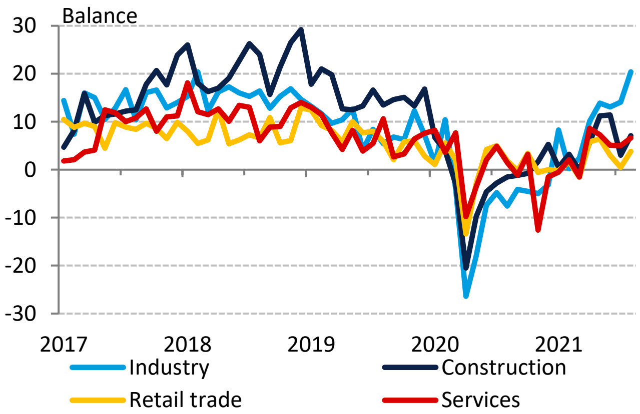
According to the Labour Force Survey, the number of employed in 2021 Q2 was 63,000 higher in year-on-year terms. The average number of whole economy employees amounted to 4.619 million in these months according to seasonally adjusted data. The number of fostered workers rose by 5,000, while those employed at places of business

Chart 3-23: Decomposition of annual changes in whole-economy employment



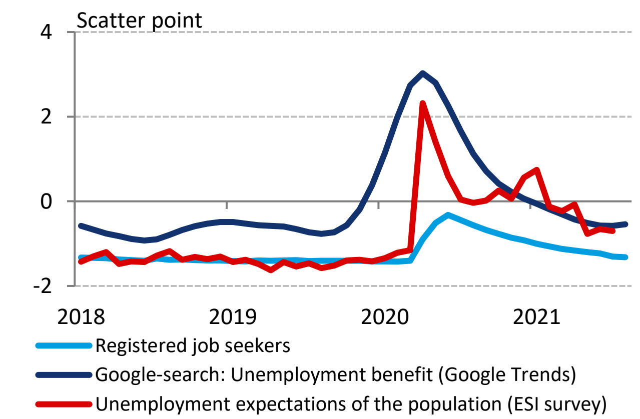
Note: Instead of Q2 2021, monthly data for April is available. Changes in the number of unemployed and economically inactive have the opposite sign. Source: HCSO

Chart 3-24: Employment expectations in the ESI business survey



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

Chart 3-25: Indicators capturing the short-term evolution of unemployment



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

abroad declined by 18,000 versus one year ago. Private sector employment increased by 1.5 percent in year-on-year terms and by 0.9 percent compared to the previous quarter. Adjustment took place in the number of hours worked as well; the full-time equivalent (FTE) headcount increased by 3.9 percent in year-on-year terms. Within the private sector, the number of employees grew on an annual basis in manufacturing, construction, tourism and in certain market services subsectors (finance, information and communication), while it declined in trade and transportation (Chart 3-22). With the end of the vaccination campaign, the number of employed declined slightly in the public sector compared to Q1.

Based on the raw data, the number of employees in the economy as a whole was at a historical high of 4.704 million people in July 2021, up 94,000 on the previous year (Chart 3-23). According to seasonally adjusted data, the number of employed was 16,000 higher compared to the previous month. Employment in June was the highest according to both raw and seasonally adjusted data since the political transformation. The seasonally adjusted unemployment rate declined from 4.1 percent in Q2 to 3.9 percent in July. Unemployment in Hungary is still considered low in an international comparison.

According to the ESI business survey, which monitors economic sentiment, companies' expectations regarding employment were positive in the spring and summer months, and headcount increases are planned in all the major sectors. Demand for labour in manufacturing is already higher than before the pandemic, while it came close to pre-pandemic levels in the services sectors and in construction (Chart 3-24).

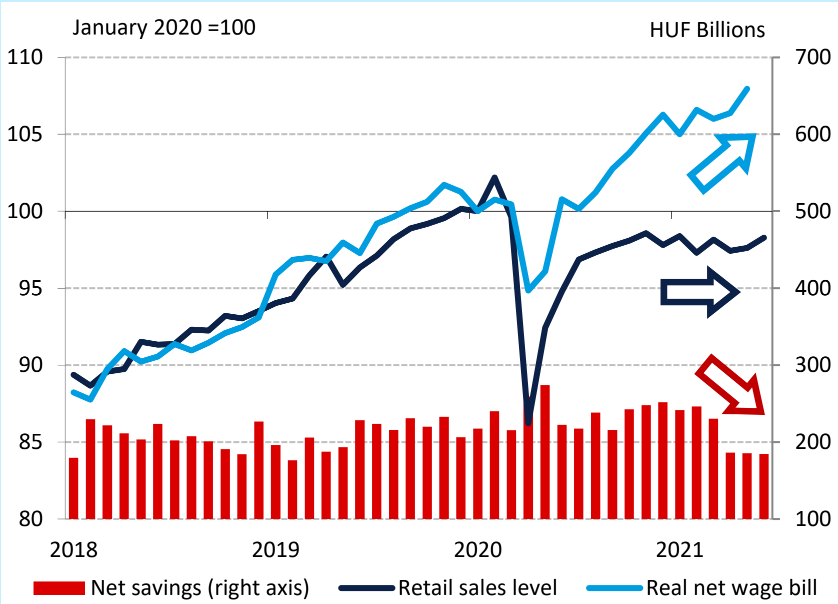
Indicators of short-term developments in unemployment continue to paint a positive picture of the labour market (Chart 3-25). Following its peak in June last year, the number of registered unemployed has steadily declined. In August of this year it amounted 261,000, which is only 10,000 people more than the pre-pandemic level. The Google Trends indicator concerning unemployment benefit is at the pre-crisis level, and according to the ESI household survey, households' fear of unemployment is the lowest now since the outbreak of the coronavirus pandemic.

Box 3-2: What do households spend their money on?

In spite of the slowdown in wage dynamics observed in recent months, underlying income trends continue to suggest a stable expansion in household incomes. In Q2, wage growth in the national economy as a whole reached 7.2 percent on average in nominal terms, while employment rose by 1.4 percent. Consequently, the real net wage bill expanded by 6.3 percent in Q2. Both the wage and headcount data received during the quarter indicate a rapid recovery. This box provides an overview of why no major recovery has been seen in retail product turnover despite the strong income developments, and where the household savings that became freely available since the reopening of the economy were spent.

Retail turnover still has not reached the level observed prior to the coronavirus crisis, and according to the latest data for July turnover has remained below that level – by 2.1 percent – in spite of the favourable labour market developments. In view of last year's low base, retail turnover expanded by 7.3 percent in Q2 (Chart 3-26). The household confidence indicator has been fluctuating within a historically low band between -37 and -30 points since February.

Chart 3-26: Retail turnover, real net wage bill and net savings



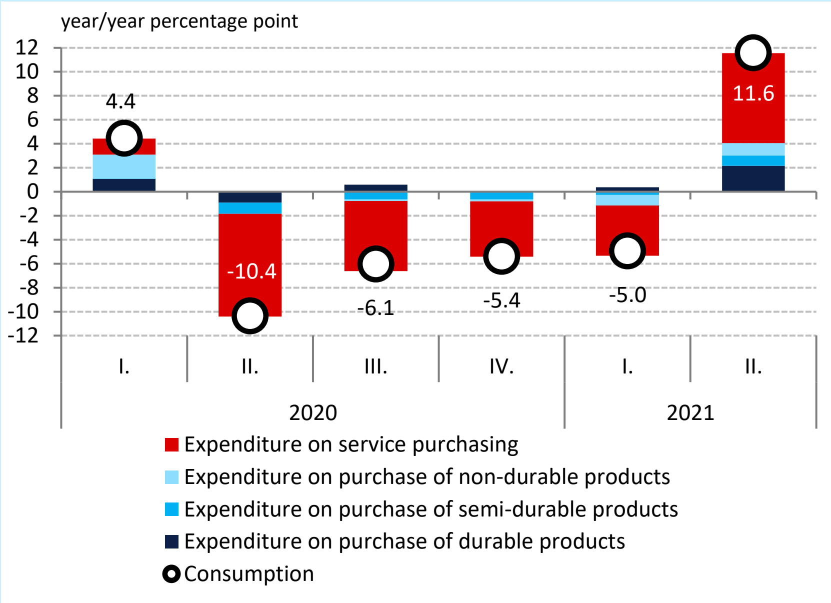
Note: January 2020 level = 100.
Source: HCSO data, MNB calculation

In line with our expectations, the high savings rate recorded last year declined following the easing of containment measures in April. In Q2, the decline in families' net savings compared to last year was attributable mainly to the dynamic expansion in retail lending and to a lesser degree to the decrease in savings. The expansion in retail lending observed in Q2 was primarily the result of a dynamic rise in the granting of housing loans. Housing loans granted reached record highs every month since March, as a result of which housing loan issuance in Q2 exceeded the figure for the same period of 2019 by 44 percent. The outstanding volume was attributable to the new home-creating measures available as of 2021 as well as to the demand brought forward in the credit market in relation to expectations of home price appreciation and interest rate hikes. In addition to the latter, the rise in home prices also contributed to the record high quarterly housing loan issuance through the increase in average loan amounts.

In Q2, households' cash holdings and bank deposits expanded more slowly than during the pandemic. At the same time, savings placed in bank deposits continued to exceed the average pre-crisis transaction volume in recent months. By contrast, declines in net bank deposit placements were typically observed across Europe. In the case of deposits, the increase in stock was attributable to an expansion in liquid assets. Past months' data suggest that households' government securities holdings continued to expand, despite the fact that households' net financial savings in Q2 were at a lower level compared to last year. Households still invest around one quarter of their savings in government securities, thus ensuring stable demand for this popular savings instrument. Retail government securities holdings exceeded the level of HUF 9,700 billion in July 2021.

Detailed data on households' consumption expenditures in Q2 indicate an upswing in domestic demand for services. In parallel with a decline in households' savings rate, demand for services (such as catering and accommodation services) picked up significantly following the lifting of containment measures in April and May. Accordingly, the recovery of the consumption of services was the largest contributor to the expansion in consumption in 2021 Q2 (Chart 3-27). Expenditures on the purchase of services rose by 19.9 percent compared to last year's low base. In addition, significant expansion was observed in the consumption of durables (19.4 percent), which – on the basis of retail trade data – was probably attributable to vehicle purchases as well as to an increase in the turnover of cultural and other items.

Chart 3-27: Contribution of consumption items to the expansion in consumption expenditures



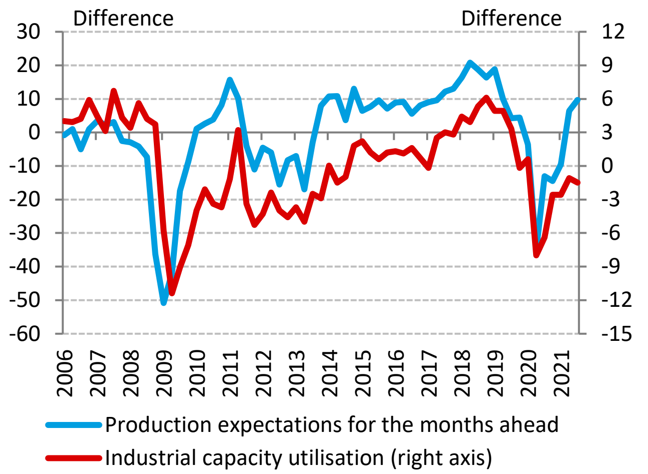
Note: Annual contribution to the increase in households' domestic consumption expenditures.
Source: HCSO data, MNB calculation

Due to construction and building material prices, the surge in the costs of renovation may have forced households to regroup their expenditures. There was an extreme increase in construction costs in Hungary in international comparison (for more details, see Box 3-1). In 2021 Q1, households' construction costs in Hungary rose nearly 17 percent year-on-year, which – in addition to the sudden rise in the consumption of services – may explain the retail sales data, which are subdued in international comparison.

3.4. The cyclical position of the economy

The Hungarian economy continued to recover in 2021 Q2. With the correction in demand following economic reopening, the cyclical position of the economy may have improved significantly in recent quarters. In line with the rapid recovery, the output gap may have narrowed in the past period, as a result of which output may be approximating its potential level. Changes in the cyclical position involve even greater uncertainty than usual, and the quantification and separation of supply and demand effects poses a major challenge. Due to restarting the economy, supply-side constraints are contributing to the rise in inflation. Capacity utilisation at manufacturing companies remains at a low level this year.

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



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

According to our estimation, with the correction in demand following economic reopening, the cyclical position of the economy may have improved significantly in recent quarters. The output gap may have narrowed in the past period, as a result of which output may be approximating its potential level. Changes in the cyclical position involve even greater uncertainty than usual, and the quantification and separation of supply and demand effects poses a major challenge. Due to restarting the economy, supply-side constraints are contributing to the rise in inflation.

According to questionnaire-based surveys, capacity utilisation at manufacturing companies remains at a low level this year (Chart 3-28). In line with the favourable data and easing of containment measures, the prospects for global economic performance have improved, but uncertainty in this regard remained significant in parallel with the spread of the Delta variant. Future production expectations of domestic manufacturing companies improved further in the middle of the year. The recovery of the economy is expected to continue in 2021 Q3, as the strict containment measures taken against the coronavirus pandemic were lifted during Q2.

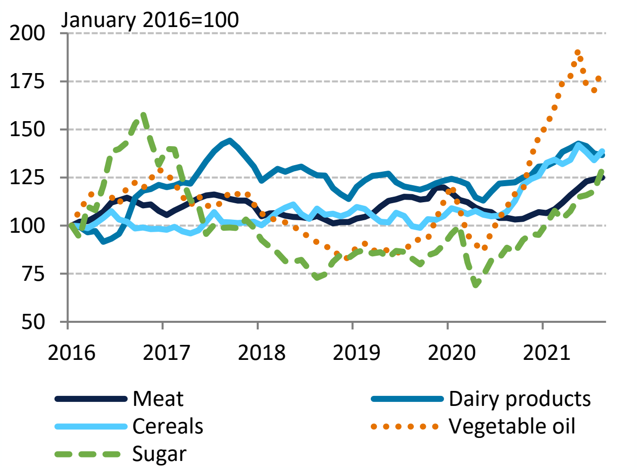
3.5. Costs and inflation

The growth rate of prices peaked at 5.3 percent in June and stood at 4.9 percent in August in year-on-year terms. On average, core inflation excluding indirect taxes amounted to 3.6 percent in the past months. The price rise of industrial goods exceeds the average of previous years: one possible contributor to this may have been that global commodity price increases are gradually appearing in the consumer prices for an increasingly wide range of products. Market services inflation rose in June, but subsequently remained unchanged at 4.1 percent from July, indicating that most of the repricing related to the reopening may have already taken place in the services sector. The indicators capturing longer-term inflation trends – the inflation of demand-sensitive products as well as sticky-price products and services – increased slightly in August, following a decline in July.

3.5.1. Producer prices

The decline in world market prices of food in June and July was followed by a rise in August. Prices of sugar, oil crops and cereals increased by the largest degree. The price rise for sugar was caused by unfavourable weather in Brazil and uncertain harvest prospects. An increase in demand and tighter-than-expected supply contributed to the price increase for oil crops. In term of cereals, it was primarily the commodity exchange prices of wheat that increased considerably, due to globally unfavourable weather conditions that jeopardise the prospects of harvest results (Chart 3-29).

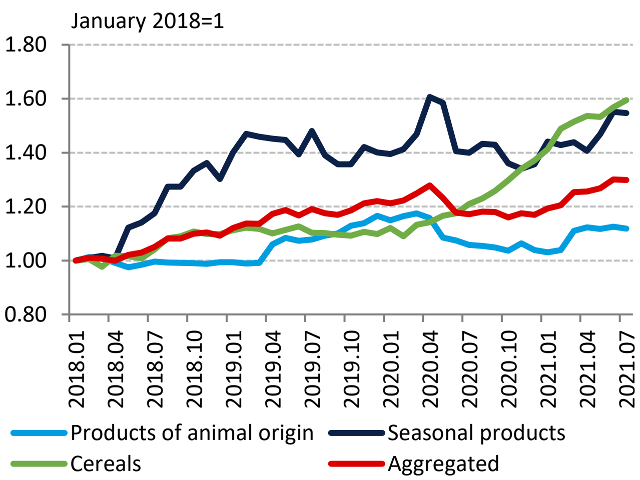
Chart 3-29: Development of world market prices of food



Note: Real price indices.
Source: FAO

Compared to the previous quarter, on the whole, domestic agricultural producer prices rose in year-on-year terms in 2021 Q2. Following the average 30-percent year-on-year increase typical of Q1, the producer prices of fruits rose by only less than 1.5 percent in Q2. After one year, the producer prices of potatoes increased, with a nearly 25 percent year-on-year rise observed in June. In the case of products of animal origin, the producer price of pork fell nearly 10 percent on average in Q2 of this year. In 2021 Q2, cereal prices increased by more than 30 percent year-on-year (Chart 3-30).

Chart 3-30: Development of agricultural producer prices



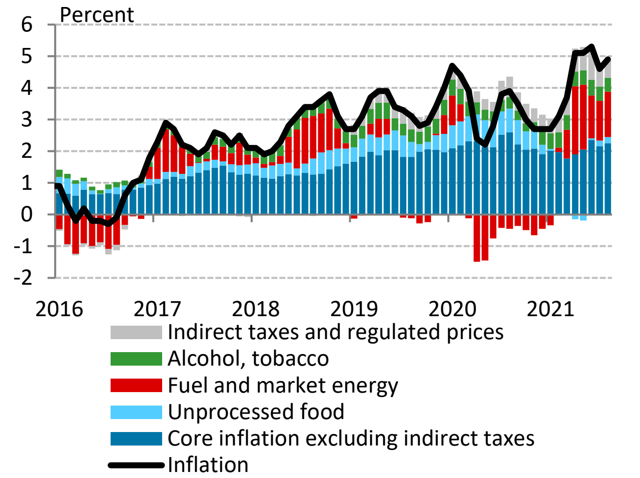
Note: Based on seasonally adjusted data.
Source: HCSO

In the case of consumer goods, the rise in domestic industrial producer prices exceeded the historical average until July 2021. Showing a double-digit rise, the year-on-year increase in domestic sales prices in industry as a whole exceeded the historical average in the past months, which was mainly attributable to the base effect of last year's steep decline in the energy-producing sectors.

3.5.2. Consumer prices

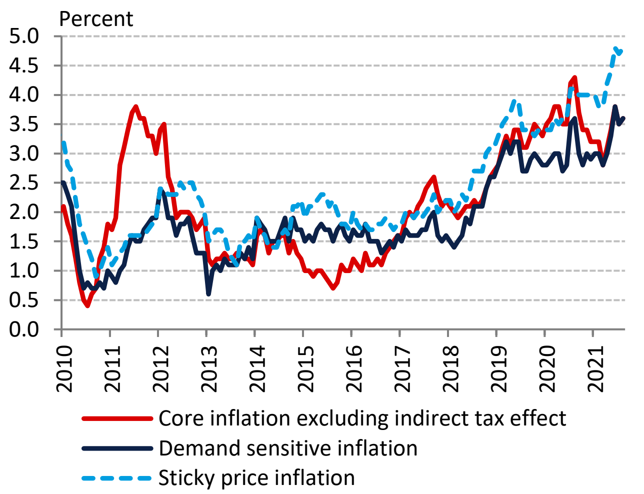
The year-on-year growth rate of prices peaked at 5.3 percent in June and then amounted to 4.9 percent in August. The higher price dynamics of fuels, at more than 20 percent, contributed the most to the increase in prices in August. A major portion of the developments in inflation can still be attributed to fuel price changes (Chart 3-31).

Chart 3-31: Decomposition of inflation



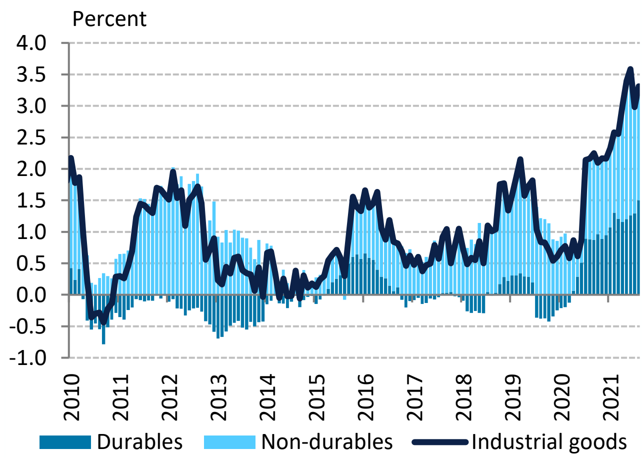
Source: MNB calculation

Chart 3-32: Underlying inflation indicators



Source: MNB calculation based on HCSO data

Chart 3-33: Inflation of industrial goods



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

On average, core inflation excluding indirect taxes was at 3.6 percent in the past months. The indicators capturing longer-term inflation trends – the inflation of demand-sensitive products as well as sticky-price products and services – increased slightly in August, following a decline in July (Chart 3-32). The core inflation indicator calculated according to the Eurostat methodology (inflation excluding volatile energy, food, alcohol and tobacco products) shows a mixed picture: while it exceeds the tolerance band around the central bank inflation target in Poland, it is within the tolerance band and around the central bank inflation targets in Hungary, Romania and Czechia (see Section 3.1).

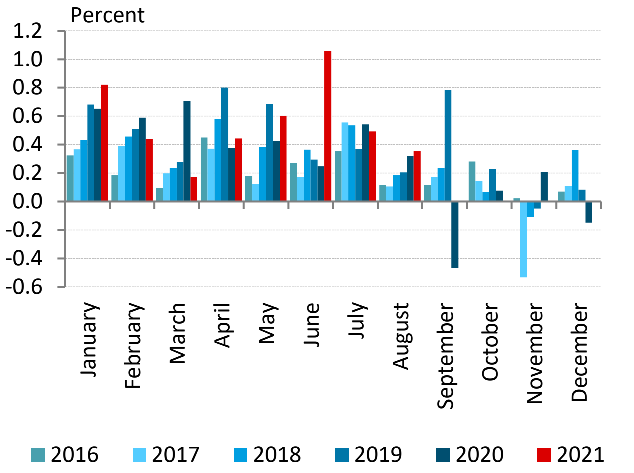
The inflation of industrial goods averaged 3.3 percent in recent months. The price rise for industrial goods exceeds the average of previous years: one factor contributing to this may have been that global commodity price increases are gradually appearing in consumer prices for an increasingly wide range of products. Within this product group, the inflation of durables rose to 4.4 percent by August. Following a peak of 3.5 percent in June, non-durables inflation fell to 2.8 percent by August, owing to base effects as well (Chart 3-33).

The inflation of market services rose in June, but subsequently unchanged at 4.1 percent from July, indicating that most of the repricing related to the reopening may have already taken place in the services sector. Price dynamics in June were higher than the average of previous years, primarily due to changes in the prices of domestic holidays as well as mobile phone and Internet services. In July and August, price dynamics corresponding to last year were observed (Chart 3-34).

Prices of alcohol and tobacco products continued to increase by more than 10 percent year-on-year in the past period as well. This was caused by the carry-over effect of the market price increase in December 2020, which was larger than in the previous years, as well as by the excise tax hikes entering into effect from January and April. At the same time, the price dynamics of this product group are gradually declining with the fading of the effects from last year's excise tax hikes.

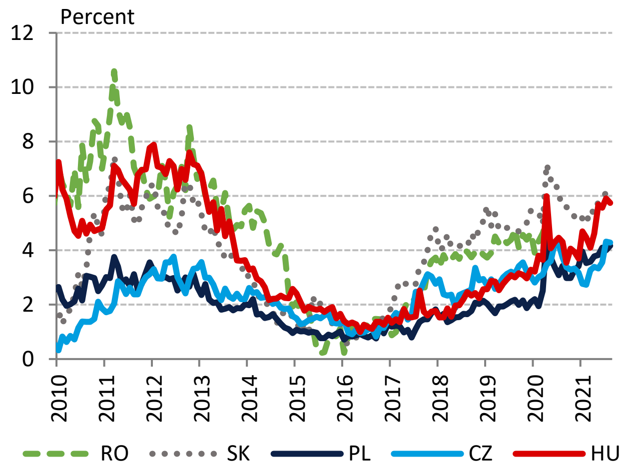
Food inflation was up, but on the whole in the past months it was characterised by weaker price dynamics compared to the historical average. The inflation of unprocessed food came out of the negative range and accelerated to 3.5 percent, with the price changes of fresh fruits and potatoes as the main contributors. Processed food inflation fell from 3.9 percent in June to 3.3 percent in August.

Chart 3-34: Monthly price change of market services



Note: Not seasonally adjusted monthly price changes excluding indirect tax effects.
Source: HCSO, MNB

Chart 3-35: Inflation expectations in the region



Note: No data available for Romania since May 2020.
Source: MNB calculations based on European Commission data

In the past period, fuel prices were determined by world market oil prices as well as by base effects. As a result of the changes in the world market price of Brent crude oil and the base effect of last year's price increase, the inflation of fuels was around 20 percent.

Regulated prices increased in the past months. This is attributable to the effect of cancelling the free parking system in public areas, implemented in November 2020 due to the coronavirus pandemic.

Based on data from recent months, inflation was higher than the forecast in the June Inflation Report.

3.5.3. Inflation expectations

Households' inflation expectations remained practically unchanged in the past period. In the summer months, inflation expectations stagnated at relatively high levels in all of the countries in the region (Chart 3-35). Similarly to the consumer price index, indicators that measure households' inflation expectations are more volatile than usual.

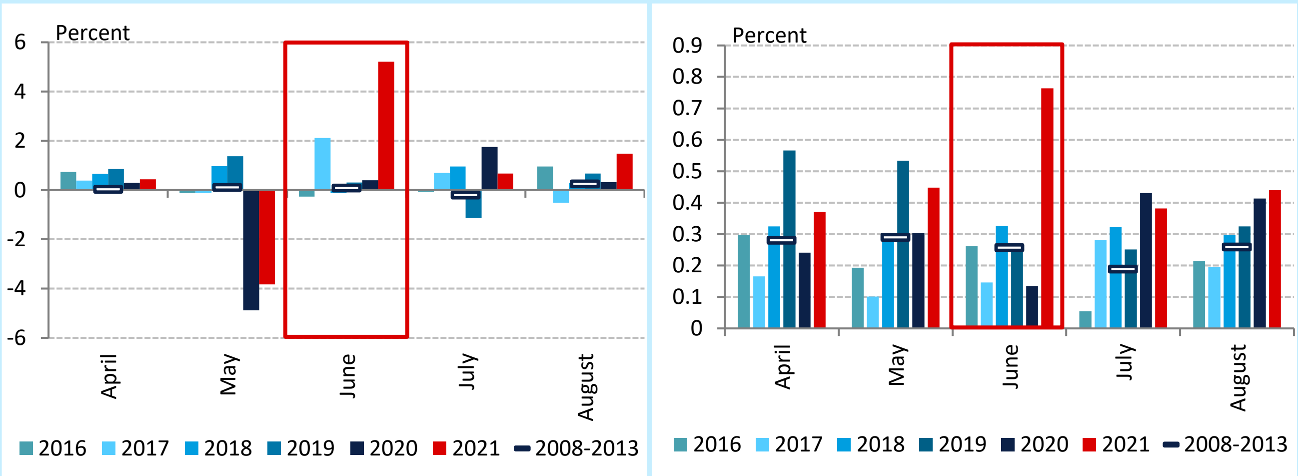
Box 3-3: Analysis of the impacts of the economic opening on inflation

In parallel with the weakening of the third wave of the pandemic and the increase in the vaccination coverage of the population, a gradual lifting of containment measures started from 7 April. This box presents the impacts exerted by the economic opening in April and May on domestic inflation developments.

The range of services affected by the restrictions and the timing of restarting the economy were different from what was experienced last year. In contrast to the first wave of the pandemic, this year it was possible to restart economic life in April, as a result of Hungary's successful vaccination programme. Outdoor seating at catering establishments was allowed to open at end-April, whereas accommodation services, zoos, swimming pools, fitness facilities, cinemas and theatres became available again from May. Accordingly, the inflationary effect related to reopening was also perceived earlier (in May and June) than last year.

Following the lifting of restrictions, the inflationary effect related to reopening was smaller than that observed in the summer of 2020. In the case of the services affected by the early opening, the rapid appearance of demand resulted in larger price increases than before mainly in the catering and tourism sectors. As for domestic holidays, the repricing experienced in June significantly exceeded the average of previous years (Chart 3-36, left panel). A similar pattern was observed in market services as well, where the price rise reached nearly 0.8 percent in June (Chart 3-36, right panel). Nevertheless, the annual price index of market services did not increase further in July, indicating that most of the repricing related to reopening had already occurred. According to our calculations, the additional repricing stemming from the reopening of the economy may have added a total of 0.5 percentage point to inflation in May-July in Hungary.

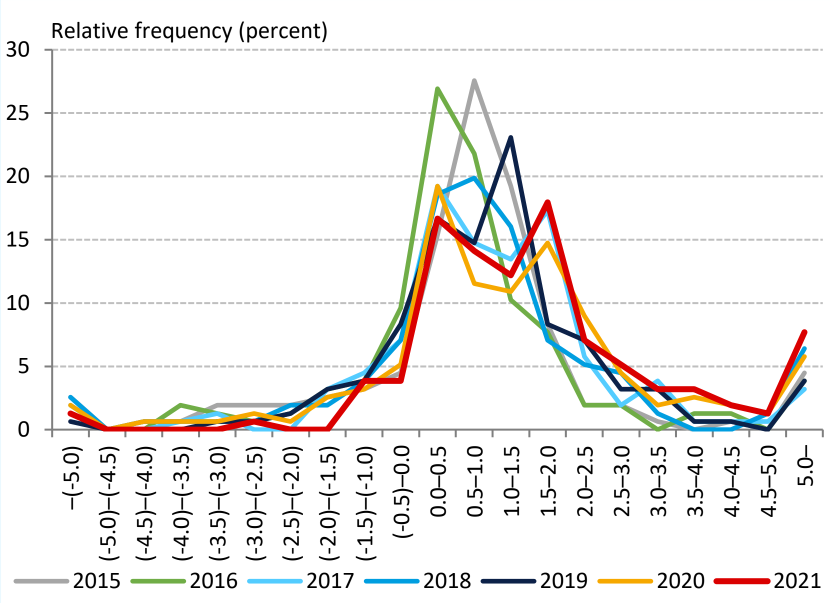
Chart 3-36: Monthly price dynamics of domestic holidays (left panel) and market services (right panel)



Note: Seasonally adjusted monthly changes excluding indirect tax effects.
Source: HCSO, MNB

Examining the distribution of monthly price changes at the product level over the past 6 years, it can be stated that this year, similarly to last year, the distribution widened to the right (Chart 3-37). The share of products and services showing a decrease in prices and a moderate change in prices was lower than in previous years, while the share of items with a price increase of more than 3 percent was higher in May-July than in previous years. However, the estimated inflationary impact of this year's reopening was lower than 0.9 percentage points in 2020 (see Box 3-2 of the September 2020 Inflation Report). This is presumably attributable to the fact that this year's restrictions affected only a narrower range of products and services.

Chart 3-37: Distribution of the May-July price dynamics of the items of inflation (2015-2021)



Note: Seasonally unadjusted monthly changes excluding indirect tax effects.
Source: HCSO, MNB

Following the restarting of the economy after the coronavirus pandemic, price increases that exceed the central banks' inflation targets are a phenomena that can be observed internationally. Rising inflation is the 'price of restarting' and a consequence of successful recovery. Following the economic opening, the increase in consumer prices in June exceeded 5 percent not only in Hungary but in the United States as well, and the economies in the region are also characterised by unusually strong price rises. Following a 4.4-percent increase in June, inflation in Poland advanced to 5.0 percent in July and 5.5 percent in August in year-on-year terms. Consumer prices in the Czech Republic rose 3.4 percent year-on-year in July, exceeding the market expectations of a 2.9-percent rise, and rose to 4,1 percent in August.

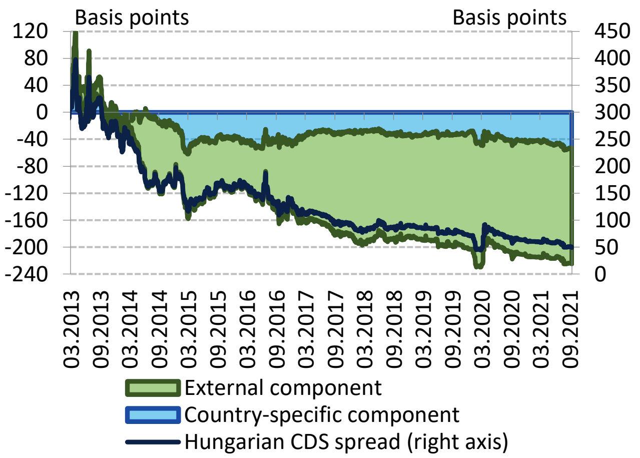
4. Financial markets and interest rates

4.1. Domestic financial market developments

Sentiment on the financial and capital markets was volatile in the past quarter. In the first half of the period since June, market sentiment deteriorated slightly due to the spread of the Delta variant and the related introduction of stricter containment measures. Nevertheless, investors' risk appetite improved as a result of macroeconomic data released in the second half of the quarter and the continued supportive US monetary policy. Risk indicators increased slightly in a changing financial market atmosphere, while financial market volatility declined moderately compared to June.

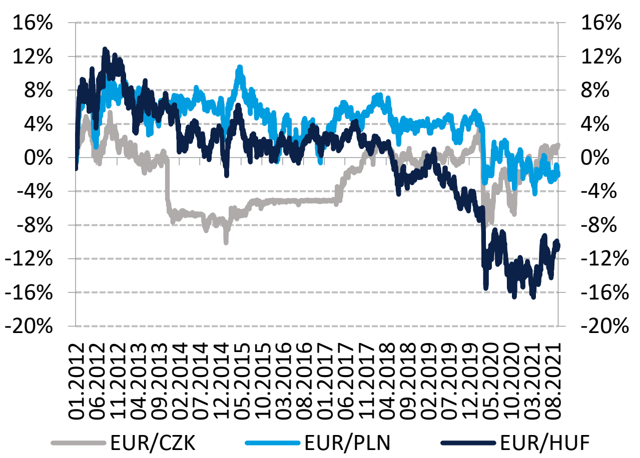
Despite volatile investor sentiment, Hungary's credit risk spread fluctuated within a narrow band in the first half of the past quarter and then declined. As a result of mounting inflation risks and interest rate expectations, government securities yields rose in the region and Hungary. The interbank yield curve also shifted upwards. Compared to the currencies in the region, the forint appreciated to a greater degree, i.e. by 1 percent, against the euro. Within the region, the Polish zloty and Czech koruna moved mostly together, but the zloty began to weaken at the end of the period, depreciating by 1 percent, while the koruna strengthened by 0.6 percent.

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

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

In spite of the volatile international investor sentiment, Hungary's credit risk spread fluctuated within a narrow band in the first half of the past quarter and then declined (Chart 4-1). During the period, both international and country-specific factors reduced the CDS spread, which is currently at around 50 basis points.

4.1.2. Developments in foreign exchange markets

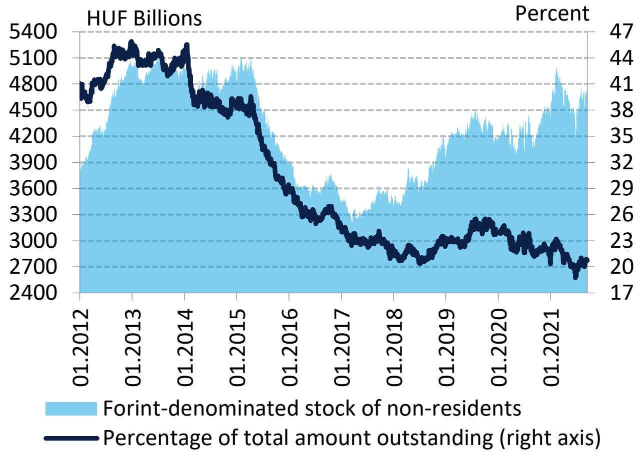
Compared to the currencies in the region, the forint appreciated to a greater degree, i.e. by 1 percent, against the euro. Within the region, the Polish zloty and Czech koruna moved mostly together, but the zloty began to weaken at the end of the period, depreciating by 1 percent, while the koruna strengthened by 0.6 percent (Chart 4-2). The currencies fluctuated in parallel with the changes in interest rate expectations related to the increase in inflation risks. The forint depreciated by 1.5 percent against the US dollar, whereas of the currencies in the region the zloty and the Czech koruna weakened against the US currency by 3.1 percent and 1.2 percent, respectively.

4.1.3. Government securities market and changes in yields

Non-residents' HUF-denominated government securities holdings increased in the past quarter (Chart 4-3). Non-residents' HUF-denominated government securities holdings fell considerably in the first half of this year, but have been increasing since June. The holdings grew by nearly HUF 300 billion during the past three months. The ownership share within HUF-denominated government securities also rose, edging up to 20.8 percent.

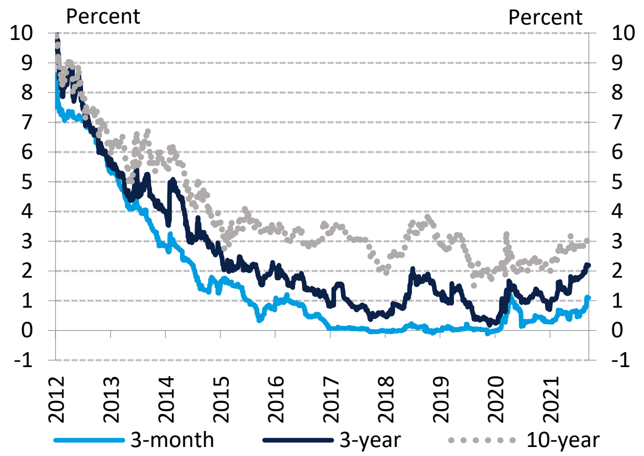
At its discount treasury bill auctions, the ÁKK accepted offers below the announced amount, whereas the quantities accepted at the government bond auctions

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



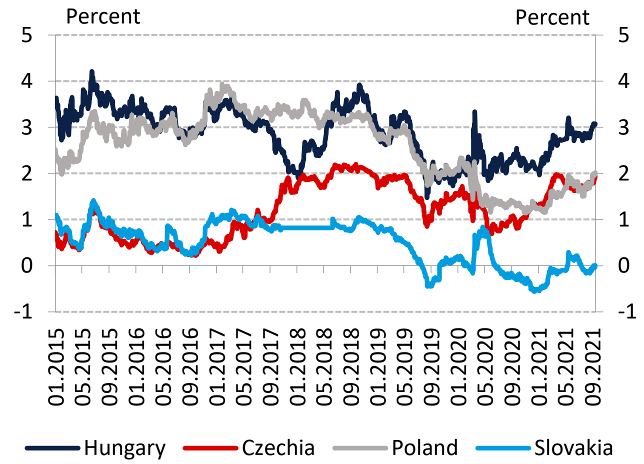
Note: The chart shows the stock of T-bills and T-bonds.
Source: MNB

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

were roughly that much greater. Average auction yields rose at all maturities in the past quarter, in line with the increase in the secondary market yield. Average auction yields increased by 51 basis points at the 3-month discount treasury bill auction and by 22 basis points at the 10-year auction. Accordingly, average auction yields were at 1.1 percent and 3.07 percent, respectively, at the end of the period. The Debt Management Agency also sold a higher-than-announced amount of the green government security with a 30-year maturity issued in April.

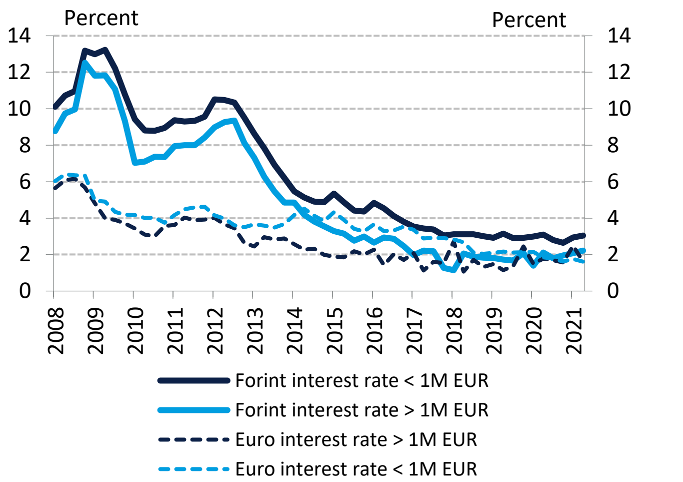
Yields increased over the entire government securities market yield curve (Chart 4-4). Yields at shorter maturities were already rising from mid-June, whereas long-term yields were still slightly declining until end-July. During August, however, yields started to rise again at all maturities. On the whole, during the quarter the 3-year and 10-year yields were 44 and 20 basis points up, respectively, which was mostly explained by international factors, including the interest rate hike expectations in the region, which were increasing to similar degrees. Of the interbank yields, the 3-month BUBOR rose, moving 68 basis points higher to 1.61 percent.

Most of the long-term reference yields in the region increased during the period (Chart 4-5). Similarly to the yield increase in Hungary, the 10-year Polish yield rose by 24 basis points, while the Czech yield rose by 33 basis points. The Slovak yield fell 17 basis points.

4.2. Credit conditions of the financial intermediary system

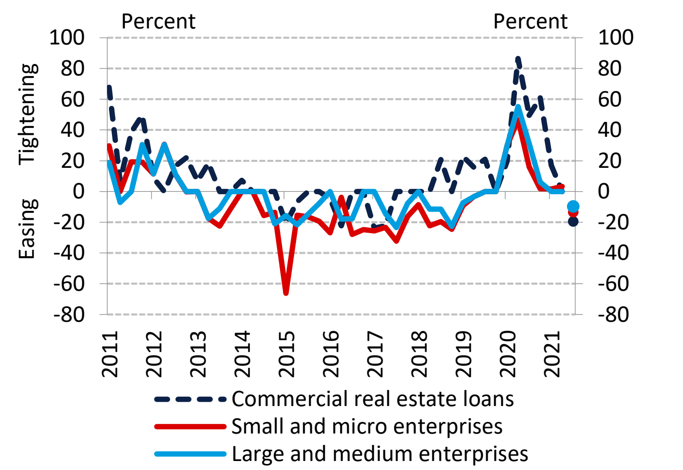
In 2021 Q2, corporate credit conditions remained practically unchanged in all company size categories as well as for commercial real estate loans, and standards are already expected to be eased looking ahead to 2021 H2. Housing loan standards did not change in 2021 Q2, while the conditions of consumer loans eased, and further easing is expected looking ahead as well. The average cost of funds of corporate forint loans increased, while that of euro loans declined in the period under review, while the average APR on long-term fixed-rate housing loans did not change significantly. Two thirds of the housing loan contracts concluded during the quarter were certified consumer-friendly housing loans (CCHL), ensuring long-term predictability of the instalments. The real interest rate level declined slightly during the quarter, which is basically explained by the increase in inflation expectations.

Chart 4-6: Interest rates on new corporate loans



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

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



Note: Net percentage balance of respondents tightening/easing credit conditions weighted by market share. Forecast for 2021 Q3 and 2021 Q4.
Source: MNB, based on banks' responses

4.2.1. Corporate credit conditions

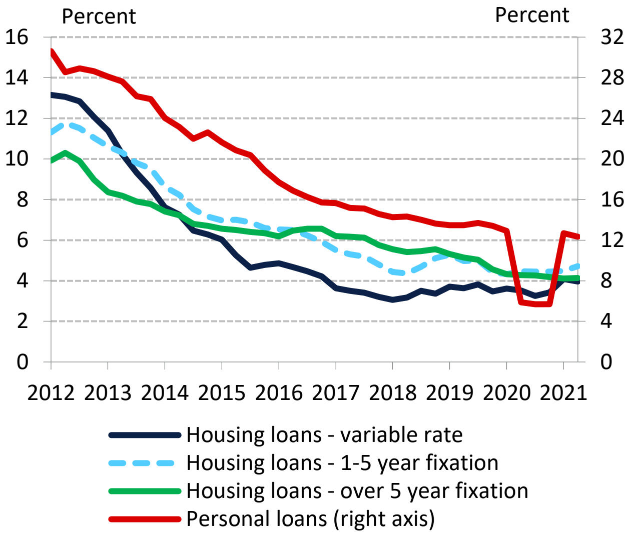
In 2021 Q2, the average interest rate on forint loans increased, while that on euro loans decreased. The smoothed average interest rate level on new corporate HUF loans with interest rates variable within a year (i.e. mostly market based loans) – excluding money market transactions – rose by 11 basis points in the case of low-amount loans and 13 basis points in the case of high-amount loans compared to the previous quarter (Chart 4-6). Accordingly, within the loans the interest rate of which is variable within one year, the average interest rate on forint loans amounted to 2.5 percent in June. During the quarter, the interest rate level on low- and high-amount euro loans decreased by 15 and 86 basis points, respectively, and thus the average cost of funds of euro loans stood at 1.6 percent at end-June. The rise in forint interest rates is attributable to an increase in the cost of funds, whereas the decline in euro interest rates can be ascribed to a decrease in interest rate spreads.

Corporate credit conditions did not change significantly during the quarter, and easing is expected looking ahead. The banks participating in the Lending Survey did not significantly change the conditions of access to loans during Q2. Looking ahead to 2021 H2, some of them are already planning to ease conditions: 20 percent of the responding credit institutions in net terms are planning to ease in relation to commercial real estate loans, while 14 percent and 10 percent of them are planning easing in the case of small and micro enterprises as well as large and medium enterprises, respectively (Chart 4-7).

4.2.2. Household credit conditions

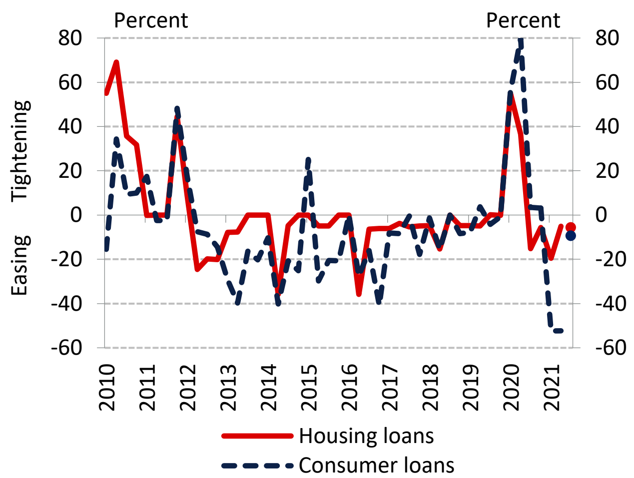
Banks did not yet include the rise in the costs of funds in their pricing during the quarter. The average interest rate spread on housing loan contracts concluded in 2021 Q2 declined in all interest rate fixation categories, to the greatest extent in the case of housing loans with interest rate fixation for more than 5 years, which saw a drop of

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



Note: Quarterly average of lending rates on newly disbursed loans.
Source: MNB

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



Note: Net percentage balance of respondents tightening/easing credit conditions weighted by market share. Forecast for 2021 Q3 and 2021 Q4.
Source: MNB, based on banks' responses

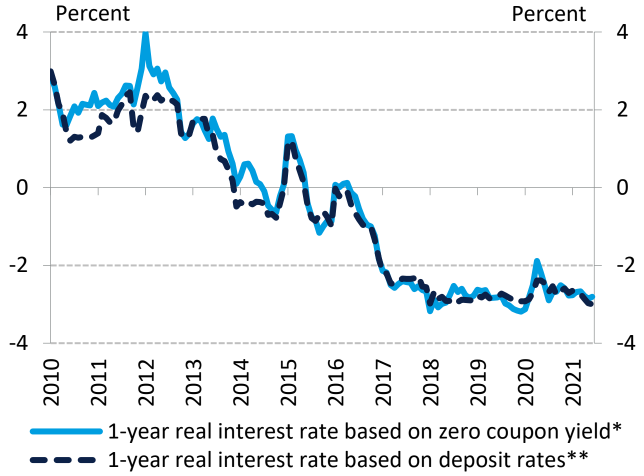
40 basis points to 1.5 percentage points. At the end of the quarter, following slight increases of 23 and 3 basis points, the average APR level on housing loan contracts concluded during the quarter stood at 4.7 and 4.1 percent in the case of loans with interest rate fixation for 1–5 years and for maturities exceeding 5 years, respectively (Chart 4-8). The average APR on personal loans decreased by 0.33 percentage point to 12.3 percent at the end of the period under review. The spread on certified consumer-friendly housing loans amounted to 1.3 percentage points at end-June 2021, and this product accounted for 68 percent of the quarterly housing loan issuance.

Banks did not change the standards of housing loans, while easing those of consumer loans during the quarter. According to responses to the Lending Survey, banks did not make any major changes to housing loan standards in 2021 Q2. In terms of partial conditions, however, half of the responding institutions indicated spread reductions, which was attributable to a pick-up in the competition among banks and to market share goals. Looking ahead to 2021 H2, they are still not planning to change the conditions of housing loans, but 35 percent of the banks in net terms held out the prospect of raising the fees charged for disbursement or the withdrawal of previous concessions (Chart 4-9). As far as consumer loans are concerned, in net terms 52 percent of credit institutions eased the conditions of access to loans in Q2, which they primarily implemented via spread reductions and by easing the allowed payment-to-income ratios. Looking ahead to Q3 and Q4, 10 percent of the banks are planning further easing of the standards in the market of consumer loans in view of the improving economic and housing market developments.

4.2.3. Changes in real interest rates

The 1-year forward-looking real interest rate decreased slightly during the quarter. In 2021 Q2, the real interest rate level reduced by inflation expectations dropped by 15 basis point, estimated based on government securities market yields, and by 27 basis points, estimated based on deposit rates. As a result, at the end of the quarter, the real interest rate estimated on the basis of government securities market yields and on the basis of deposit interest rates stood at -2.8 percent and -3 percent, respectively (Chart 4-10). The change in quarterly inflation expectations pointed to a decrease in the real interest rate level, while the

Chart 4-10: Forward-looking real interest rates



Note: * Based on the 1-year forward-looking inflation expectations of analysts calculated by the MNB using the 1-year zero coupon yield and the Reuters poll. ** Based on the 1-year forward-looking inflation expectations of analysts calculated by the MNB using deposit rates with maturity up to 1 year and the Reuters poll.
Source: MNB, Reuters poll

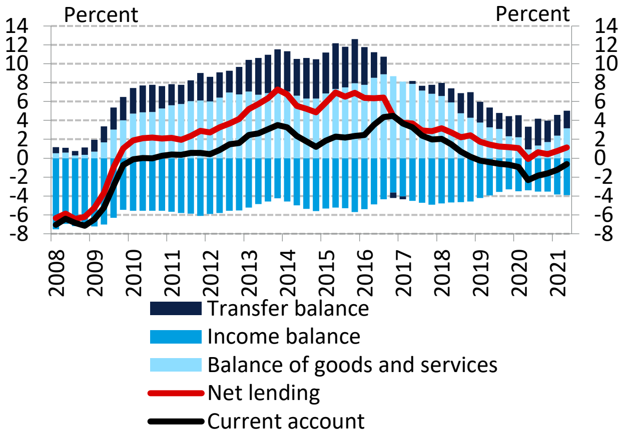
small change in benchmark yields pointed to an increase in the real interest rate level.

5. Balance position of the economy

5.1. External balance and financing

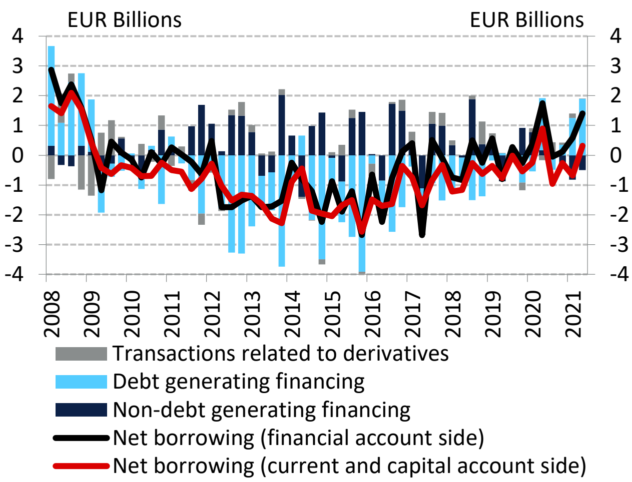
In 2021 H1, both the current account balance and net lending of the economy increased. The improvement in the external position was primarily attributable to an increase in the trade surplus: the goods balance turned into a slight surplus, and the services balance, which had dropped as a result of the pandemic, also started to improve. Export growth, which was increasing in parallel with the upswing in industrial production, and the gradually returning tourism also contributed to the rise in net exports. The income balance deficit rose as a result of a decline in the income of employees working temporarily abroad, which slightly moderated the rise in external balance indicators. The absorption of EU funds remained a major contributor to the favourable external position. According to financing data, inflows of debt liabilities were observed in 2021 H1 in parallel with net FDI outflows as a result of Hungarian companies' investments abroad.

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



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

Chart 5-2: Structure of net lending



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

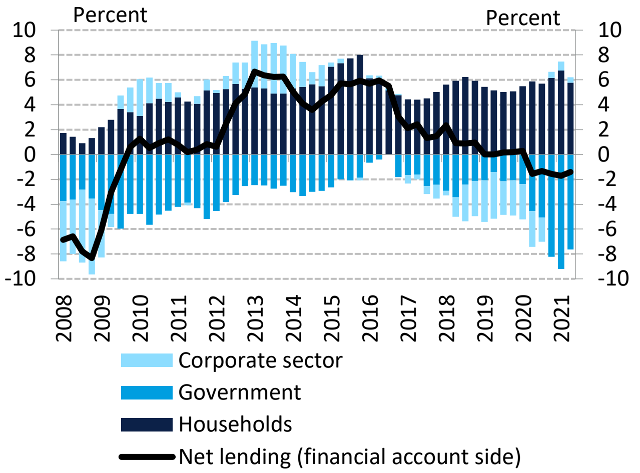
5.1.1. Developments in Hungary's external balance position

Following a drop in the spring of 2020, the current account balance-to-GDP ratio improved considerably, amounting to -0.6 percent in mid-2021. In parallel with this, net lending expanded to 1.1 percent of GDP (Chart 5-1). The improvement in external balance indicators is primarily attributable to the increase in the trade balance, which corresponded to 3.2 percent of GDP by Q2. The rapid expansion in net exports reflected the impact of an improvement in the trade balance in parallel with the upswing in industrial production, while the services balance, which had previously declined considerably, also improved as the pandemic receded. The decline in the income of those working temporarily abroad, which was presumably related to the effects of the pandemic, resulted in an increase in the income balance deficit. The transfer balance significantly improved the external balance position in 2021 H1 as well.

5.1.2. Developments in financing

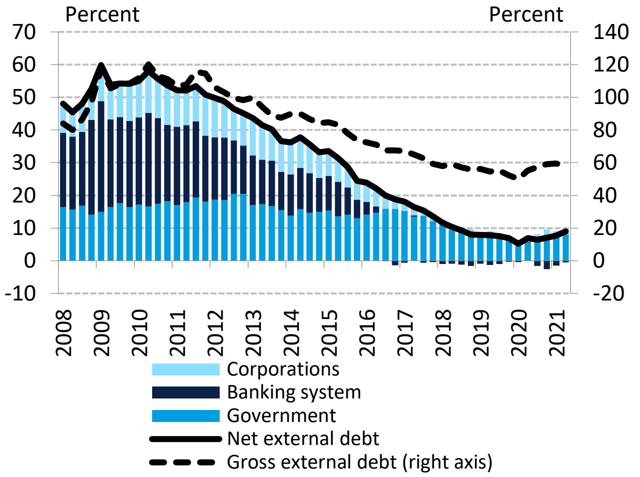
In 2021 H1, in parallel with an increase in investments abroad, net FDI outflow was observed, while debt liabilities rose (Chart 5-2)**.** The value of Hungarian investments abroad grew, while foreign investments in Hungary increased to a lesser extent, partly as a result of lower reinvestments due to lower corporate profits. As a result of domestic actors' increasing purchases of foreign mutual fund shares, net outflows of portfolio equity investments continued in H1 as well. By contrast, debt liabilities rose in 2021 H1, which was mostly related to the banking sector and to a lesser degree to the general government. The changes in debt liabilities by sector are affected by the FX liquidity provided – temporarily – for the banking sector by the central bank at the end of the quarters, whereas it is neutral for the net external debt level of the economy. The rise in the net external liabilities of the

Chart 5-3: Decomposition of net lending by sectors



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

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



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

consolidated general government was primarily linked to the state's procurement of equipment in connection with the pandemic in the spring as well as to the increase in FX liquidity providing swaps of the central bank reducing the international reserves. Non-financial corporations net external debt declined slightly in H1, reflecting the effect of the rise in external assets.

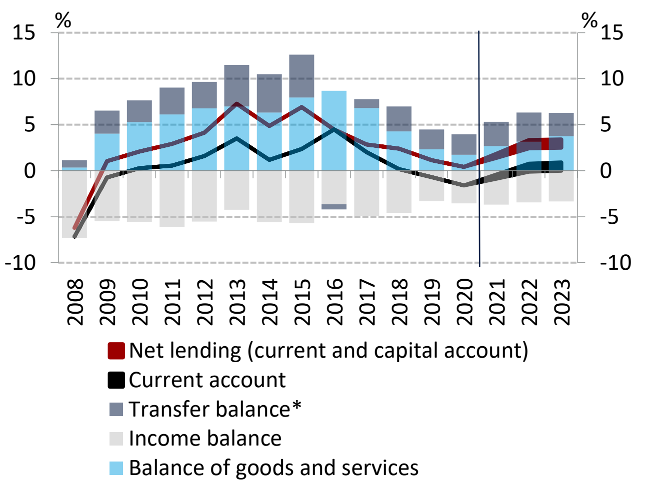
In terms of sectors' savings developments, the high net borrowing of the state in 2021 H1 was mostly offset by the significant net lending of the private sector (Chart 5-3). The impact of the pandemic was still strongly reflected in savings developments in Q1: in parallel with subdued consumption, households' net financial savings increased further, while the corporate position turned into net lending as a result of moderate investment activity, and the net borrowing of the government increased further. In Q2, however, household savings already declined with the easing of the forced savings motive, while the net borrowing of the government decreased from the previous high level in line with the increase in tax revenues resulting from the restart of the economy.

As a result of debt inflows in H1, net external debt amounted to 8.9 percent of GDP in June 2021 (Chart 5-4). Gross external debt decreased to close to 58 percent of GDP: the major expansion in nominal GDP more than offset the increase in liabilities due to transactions. In parallel with the restart of the economy, the external liabilities of the private sector rose as a result of an increase in companies' commercial loans and banks' short-term external debt. At the same time, the expansion in liabilities was mitigated by a decline in non-residents' forint government securities and the Q1 FX bond maturity.

5.2. Forecast for Hungary's net lending position

Over the entire forecast horizon, the current account balance will rise gradually, which is also reflected in the persistent increase in the net lending of the economy. Looking ahead, the current account balance is primarily determined by the expansion in the trade balance, which is supported by the rise in export dynamics in parallel with the expansion in industrial production in line with the economic recovery, the development of new capacities and the gradual return of tourism over the forecast horizon as well as by the decline in containment expenditures. In parallel with the economy becoming more dynamic, foreign-owned companies' profits are also increasing, resulting in the stabilisation of the income balance deficit as a percentage of GDP, against the background of rapid economic expansion. EU transfers continue to be major contributors to the increase in the net lending of the economy. Looking at sectors' savings developments, the general government deficit is gradually narrowing as a result of the decrease in the costs of containment measures and the rise in tax revenues, in parallel with dynamic economic growth. Households' high net financial savings observed during the pandemic will gradually decline in parallel with the recovery of consumption and the pick-up in investment activity, while – after a temporary increase – those of companies will fall as investment dynamics gain momentum. The tax refund to be potentially implemented in 2022 means a regrouping between the state and households.

Chart 5-5: Evolution of net lending

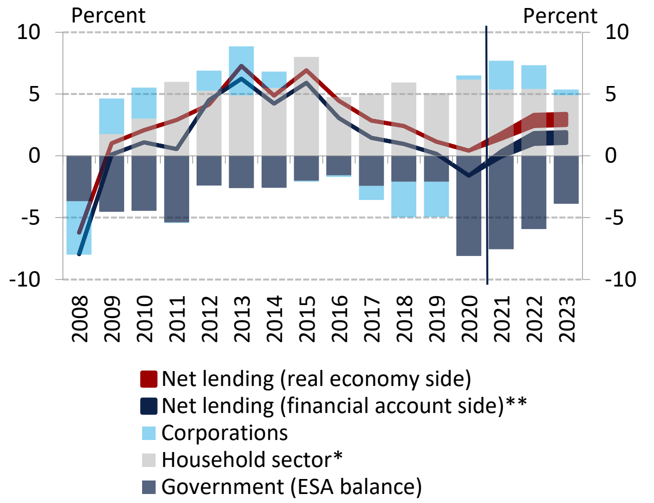


Note: Over the forecast horizon, the columns show the levels of net lending's components related to the average of the forecast band. As a percentage of GDP* The sum of the balance of the current transfers and the capital account balance.
Source: MNB

Over the forecast horizon, the current account balance increases steadily as a result of the growing trade surplus (Chart 5-5). The expansion in net exports is supported by various factors in 2021. Firstly, external demand, which is growing in parallel with the economic recovery of Hungary's trading partners, points to dynamic export growth, while import-increasing expenditures related to the pandemic are lower compared to the previous year: all of this results in an improvement in the goods balance. In addition, the services balance also expands with the pick-up in tourism. In line with the expansion in industrial production in view of the upturn in external demand (and the installation of new capacities as a result of major FDI inflows), the trade balance will improve further in 2022 and 2023. The transfer balance will result in a lasting improvement in the external balance position, although with the run-out of the funds of the current seven-year EU programming period the absorption of EU funds will temporarily decline by a moderate degree in 2023. The income of foreign-owned companies operating in Hungary will increase in parallel with the recovery of the economy, resulting in a slight increase of the income balance deficit in 2021, and then together with the dynamic economic growth, the income balance deficit as a percentage of GDP will stabilise. On the whole, the current account balance will gradually increase over the forecast horizon, and, as a result of EU transfer absorption, the net lending of the economy will also rise in parallel with that.

In terms of sectors' savings developments, the improvement in external balance position will take place in parallel with a decline in the general government deficit, which will be partly offset by a decrease in the private sector's savings from a high level (Chart 5-6). Following the large increase observed in the previous year, from 2021 the budget deficit will gradually decline over the

Chart 5-6: Changes in the savings of sectors



Note: Over the forecast horizon, the columns show the levels of net lending's components related to the average of the forecast band. 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 official net saving is different 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 a result of lower expenditures related to containment measures and a rise in tax revenues in an improving economic environment. At the same time, in 2022 the decline will be decelerated by the effect of the planned tax refund. In parallel with that, households' net financial savings, which increased in 2020, may gradually decrease due to the recovery of consumption and the increasing investment activity in view of the fading of the effects of the pandemic, while the tax refund in 2022 may result in a temporary rise in households' savings. Net lending of corporates will remain high in 2021 and 2022 as a result of EU fund inflows and government expenditures related to restarting the economy in line with the strengthening export dynamics before declining in parallel with a gradual growth in investment.

5.3. Fiscal developments

The Budget Acts for 2021 and 2022 envisage deficit-to-GDP ratios of 7.5 percent and 5.9 percent, respectively. According to our forecast, domestic economic performance will be much more favourable than the assumption used for the budget, and thus tax revenues may be higher than the appropriations, which is corroborated by H1 data as well. At the same time, based on the off-budget expenditure plans the fiscal leeway has been exploited almost completely by spending the additional revenues, and thus in our projection we continue to expect a deficit path that is in line with the Government's deficit target. Of the new measures announced since the submission of the budget bill, the most significant one is the refund of the personal income tax for individuals with children in 2022: the fiscal impact of this amounts to around 1 percent of GDP. Our technical forecast expects a further decline in the deficit path in 2023, in line with government plans. Following a temporary rise in 2020, the government debt-to-GDP ratio takes a declining path again in 2021 as a result of dynamic economic growth.

5.3.1. Main balance indicators

According to our forecast, in line with the deficit target, the government sector's accrual-based deficit as a percentage of GDP may amount to 7.5 percent in 2021 and 5.9 percent in 2022 (Table 5-1). Compared to the figure of 8.1 percent registered in 2020, the deficit will decline in 2021, which is primarily attributable to the higher revenues stemming from the acceleration in economic growth, while the expenditures related to containment of the pandemic and the measures taken to restart the economy still point to a higher deficit.

Table 5-1: General government balance indicators

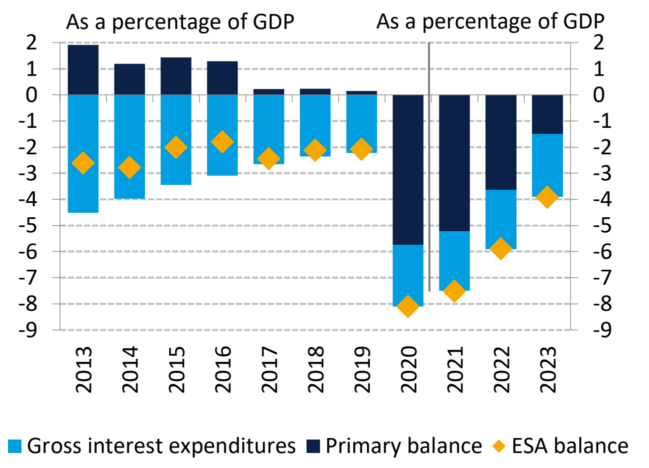
	2020	2021	2022	2023
ESA balance	-8.1	(-7.3)-(-7.5)	(-5.6)-(-5.9)	(-3.6)-(-3.9)
Primary ESA balance	-5.7	(-5.0)-(-5.2)	(-3.3)-(-3.6)	(-1.2)-(-1.5)
Fiscal impulse*	5.6	0.2-0.4	(-2.1)-(-1.8)	(-2.6)-(-2.3)

Note: As a percentage of GDP. *Change in the augmented (SNA) primary balance. Our forecast band is based on the GDP forecast band.

Source: HCSO, MNB

According to our forecast, the deficit in 2022 may reach the 5.9 percent deficit target planned in the budget (Chart 5-9). Our projection is based on much faster economic growth than the assumption in the Budget Act. Accordingly, tax and contribution revenues may be higher than the appropriations, although they are offset by measures announced since the submission of the budget. In our technical projection for 2023, the deficit continues to decline compared to the previous years.

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



Note: The point estimate in the figure corresponds to the closest value of the deficit target in our banded forecast.

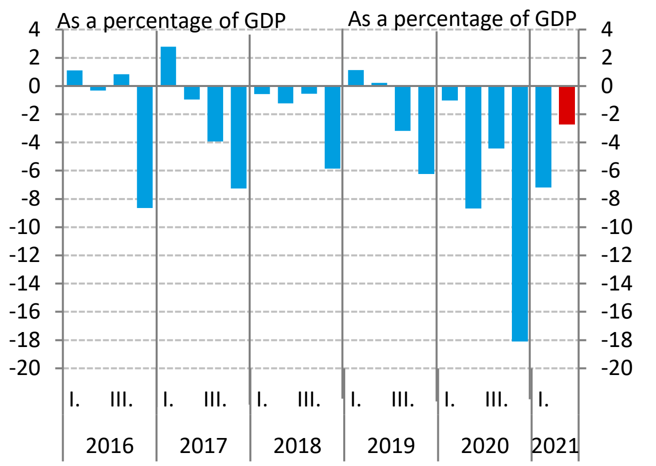
Source: HCSO, MNB

The general escape clause that partially suspended the EU fiscal rules from 2020 may remain in effect until 2022 on the basis of the Commission's recommendation, and thus, in all likelihood, even in 2022 it will not be necessary to comply with the EU rules. In parallel with that, the 3-percent criterion set forth in the Stability Act and the rule regarding the medium-term fiscal objective were also suspended until end-2023.

5.3.2. Budget balance in 2021

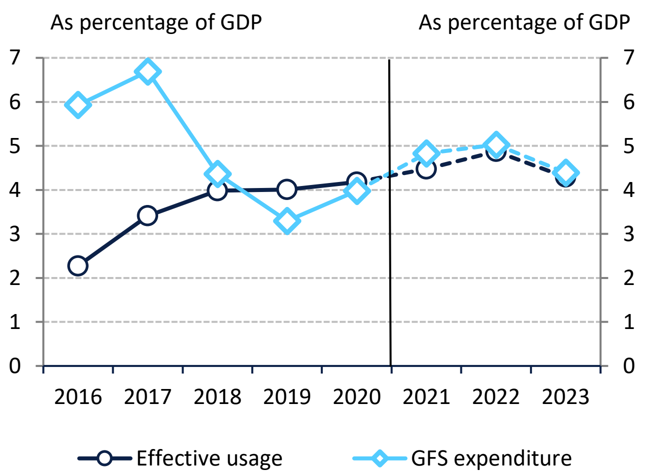
We believe that the 7.5-percent deficit target expected according to the amendment to the 2021 budget may be achieved. Fiscal developments were favourable in H1 as a result of the restart of the economy. In line with that, the Q2 accrual-based deficit corresponded to 2.7 percent of the quarterly GDP, which was the lowest value since the crisis, while the H1 accrual-based deficit was 4.3 percent

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



Note: The Q2 2021 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: Effective use of EU grants and development of cash payments



Note: The forecast was made based on the midpoint of the band of the GDP forecast.
Source: MNB, Budget laws

of the H1 GDP according to the preliminary financial account data disclosed by the MNB (Chart 5-8). Accordingly, as in the previous years, most of the budget deficit may evolve in H2.

According to our expectations, most of the additional tax revenues will be spent, primarily on the central reserves for protection against the pandemic and in the appropriations of the economic restart programmes. In view of the 2021 economic growth, which is expected to be dynamic on the basis of H1 data, a significant pension premium, exceeding 0.3 percent of GDP may be disbursed, as explained in the special topic entitled *Households' wage and income developments*.

The revenues related to the Recovery and Resilience Facility (RRF) indicated in the amendment to the 2021 Budget Act may be received if the Commission and the Council approve Hungary's recovery plan this year.

5.3.3. Balances in 2022 and 2023

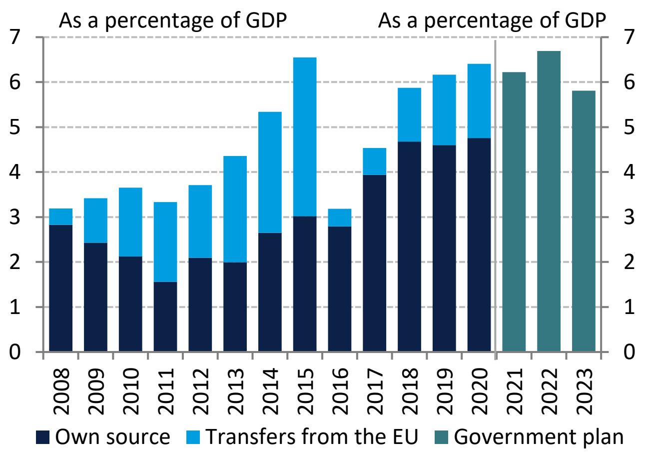
According to our expectation, the deficit in 2022 will be close to the 5.9-percent deficit target planned in the Budget Act. The more favourable economic performance expected on the basis of our projection would generate additional revenues, which allows the 2021 personal income tax payments of families with children to be refunded up to an upper limit in early 2022. According to our projection, the related fiscal effect corresponds to around 1 percent of GDP. According to the 2022 budget bill, from July 2022 the social contribution tax will be reduced by 0.5 percentage point and the 1.5 percent vocational training contribution will be cancelled.

In the absence of an available Budget Act, for 2023 we prepare technical forecasts, according to which the deficit will decline further compared to the previous years.

5.3.4. Risks surrounding the baseline scenario

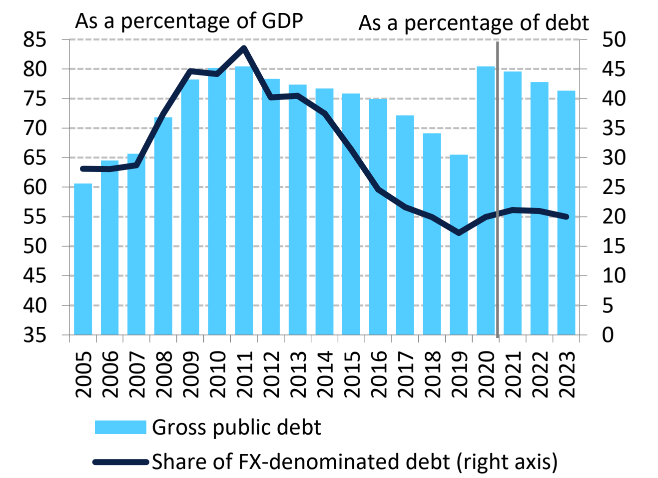
In terms of our forecast, in addition to the developments in the pandemic, another major risk is the uncertainty related to EU funds (Chart 5-9)**.** According to the prevailing rule, the budget may receive the 13-percent RRF advance only if the Commission and the Council approve the Hungarian recovery plan this year. In view of the uncertainties related to approval, the Government is planning to disburse the expenditures related to the RRF through the National Recovery Fund set up for this purpose. The scheduling of the implementation of the recovery plan may affect the accrual-based balance and real economy developments, whereas a delay in the grants may influence the changes in government debt. The

Chart 5-10: Development of government investment



Note: In the case of the government draft, the expenditure as a share of GDP was calculated with the MNB's GDP forecast. The GDP forecast was made based on the midpoint of the band.
Source: HCSO, MNB

Chart 5-11: Gross public debt forecast – calculated with unchanged (end-of-2020) exchange rate over the forecast horizon



Note: The forecast was made based on the midpoint of the band of the GDP forecast.
Source: MNB, GDMA

absence of EU funds may primarily increase the ESA deficit if advance payment is effected for programmes that have not yet been approved by the EU, and the payment occurs outside the general government. The global and domestic pandemic makes the revenues and expenditures of the budget uncertain.

5.3.5. Expected developments in public debt

According to the preliminary data, the gross government debt-to-GDP ratio stood at 77.6 percent at the end of Q2 2021. Accordingly, the debt ratio declined by nearly 3 percentage points compared to end-2020. The decline in government debt is primarily due to the robust GDP growth, the low net issuance and revaluation of the FX debt.

According to our forecast, following a temporary rise, the gross government debt-to-GDP ratio will fall to 79.6 percent by end-2021 (Chart 5-11). The debt ratio is expected to steadily decline over the forecast horizon. According to our projection, following last year's temporary increase, the government debt ratio may decrease annually by 1.4 percentage points on average, and thus may decline to around 76 percent by end-2023. The delay in the receipt of EU funds may affect the changes in the debt ratio over time, causing a slower-than-expected decline in the debt level this year, before reducing the debt upon actual receipt of the funds. Reacting to the expected delay in revenues from the EU, in September 2021 the Debt Management Agency raised its plan concerning HUF and FX issuances.

The changing EUR/HUF exchange rate affects the debt ratio even in the context of falling FX debt, and thus a 1-percent change in the EUR/HUF exchange rate modifies the debt-to-GDP ratio by 0.2 percentage point. The share of foreign currency within central government debt declined from 19.9 percent at the end of last year to 17.7 percent in 2021 Q2.

6. Special topics

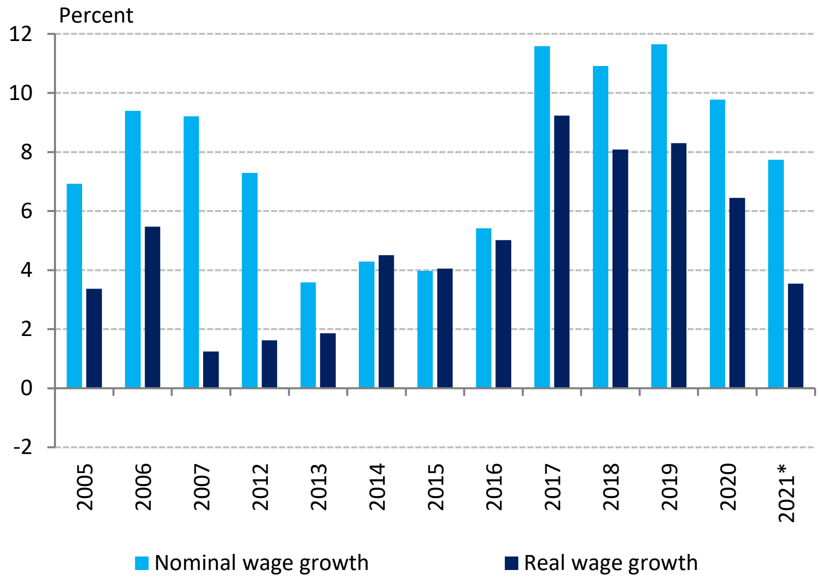
6.1. Households' wage and income developments

Annual wage dynamics in the private sector decelerated in recent months, but – according to our calculations – the underlying wage-setting trends may be higher than the published wage index. While wages were 8–9 percent higher at the beginning of 2021 than in the same period of the previous year, the year-on-year increase in wages amounted to only 6.7 percent in May and a mere 6.4 percent in June. The slower wage growth in recent months is mainly attributable to statistical effects. At the same time, the rise in employment and the headcount increases planned by companies indicate tightening in the labour market, foreshadowing stronger wage dynamics.

Statistical effects in gross average earnings resulted in an overestimation of the wage index last year and an underestimation of earnings this year. In May of last year, in addition to lay-offs, companies adapted to the crisis caused by the pandemic by reducing the number of working hours. Accordingly, employees that were moved to part-time work (mainly workers with lower earnings) were removed from the category of full-time employees, resulting in an upward distortion in the wage index. By the spring months, the ratio of part-time workers had returned to the pre-pandemic level: people working full-time again were re-included in the statistics, which currently causes an underestimation of the wage index; consequently, wage growth may in fact be higher.

Real wage growth, which determines developments in household consumption, slowed down to a lesser degree as a result of the coronavirus crisis than at the time of the 2008 crisis. Real wage growth in the private sector exceeded 8 percent between 2017 and 2019 and remained above 6 percent in 2020 as well. Compared to the previous year, real wages in the private sector may grow by 3.5 percent in 2021. Real wage growth was around 3 percent on average in the years prior to the 2008 crisis. Following the crisis, however, the whole nominal wage increase was offset by inflation in real terms in 2009, and the purchasing power of wages in real terms already declined in 2010. Compared to the financial crisis, the stronger real wage developments may now contribute to the recovery in household consumption (Chart 6-1).

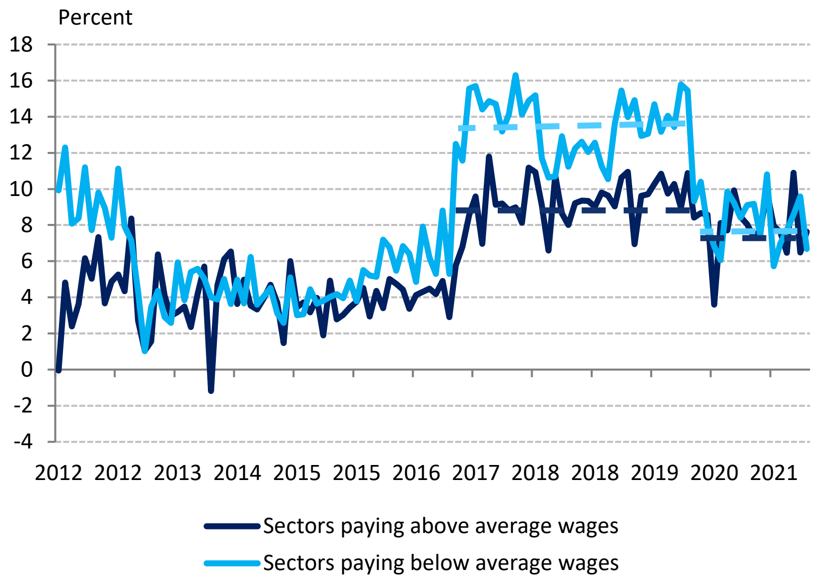
Chart 6-1: Changes in nominal and real wages in the private sector



Note: *The levels of wage growth in 2021 are consistent with the mid-range of our forecast.
Source: HCSO, MNB

Following the pandemic, the dynamics of wage increases mostly declined last year and this year in the sectors with high marginal propensity to consume, which pay below the average wage. While the wage growth seen between 2017 and 2019 in the sectors that pay above the average wage practically persisted, it declined by nearly 5 percentage points in the lower-paying sectors (Chart 6-2). Thus, the favourable developments in wages are perceived to a lesser degree by those with lower earnings, whose propensity to consume as a proportion of income is higher. Accordingly, the slowdown in wage dynamics may also affect the pace of recovery of household consumption.

Chart 6-2: Wage indices in the sectors that pay below and above the average wage



Source: HCSO

In 2021, various measures contribute to the rise in pensioners' income and to the increase in the purchasing power of pensions. Pensions were raised by 3 percent at the beginning of this year in line with the inflation planned in the Budget Act adopted in 2020. Nevertheless, consumer prices are expected to rise faster than that in 2021. Accordingly, in June the Government implemented a supplementary increase, which may be followed by one further supplementary pension increase again in November. The gradual reintroduction of the 13th-month pension started in February 2021. Beneficiaries received the first part, one quarter of their January pension, in February. Considering that dynamic growth is expected in the Hungarian economy in 2021, a previously unprecedented pension premium may be disbursed in November. Disregarding the impact of replacement and of the change in the number of pensioners, provisions to pensioners this year may be close to HUF 440 billion higher in total than in 2020 as a result of government measures (Table 6-1).

Table 6-1: Additional budgetary expenditures to pensioners in 2021

	HUF Billion
January pension increase	130
First increment of the 13th month pension benefits	86
Intra-year supplementary increases (January, November)	72
Pension premium	150
Total	**438**

Note: The value of the pension premium refers to the midpoint of the GDP forecast band.
Source: MNB calculation

Young people's personal income tax exemption up to the average wage to be introduced next year will contribute to the increase in household incomes. from 2022, the income of employees below the age of 25 will be exempt from personal income tax up to the national gross average wage level of last July. According to our estimation, around 90 percent of the employees under the age of 25 earn less than the national gross average wage, and thus the earned income of the targeted age-group will be almost completely tax exempt. Around 280,000 people may be concerned by this benefit, and their disposable income may increase by some HUF 130 billion, i.e. 0.2 percent of GDP, as a result of the measure. Over the medium term, young people's tax exemption may increase the employment of the age-group concerned and may contribute to more dynamic economic growth in the coming years.

At the beginning of 2022, the Government will apply a tax refund to increase its support to Hungarian families. Up to the amount of the average wage, the budget will refund the personal income tax of families with children paid on the basis of their income taxes paid in 2021. This new measure may take place in the first quarter of 2022 on the condition that this year's real GDP growth exceeds 5.5 percent, which, based on the forecast in the MNB's September Inflation Report, is expected to be fulfilled. The fiscal effect of the tax refund is estimated to be nearly HUF 600 billion, i.e. approx. 1 percent of GDP. As a result of the refund, families with children that paid more personal income taxes in 2021 will receive a larger portion of the disposable income. The upper limit per person of the tax refund is HUF 800,000. According to our assumption, the beneficiaries will spend half of the refund on consumption, while saving the other half.

Similarly to the tax refund, law enforcement and military employees will also receive additional benefits brought forward if the Hungarian economy grows at an expected pace. Based on the agreement reached in the respective union negotiations, if this year's real economic growth reaches 5.5 percent, law enforcement and military employees are expected to receive service benefit ('arms money') corresponding to their salary of six months in early 2022. The disbursement will be implemented by bringing forward the income that is originally due every three years, the next date of which would originally have been in 2023. The direct fiscal effect of the measure is estimated to reach HUF 250 billion, i.e. more than 0.4 percent of GDP, and may concern around 75,000 people in total.

7. Breakdown of the average consumer price index for 2021 and 2022

Table 7-1 Decomposition of inflation to carry-over and incoming effects (percentage points and percent respectively)

	Effect on CPI in 2021			Effect on CPI in 2022		
	Carry-over effect	Incoming effect	Yearly index	Carry-over effect	Incoming effect	Yearly index
Administered prices	-0.1	0.2	0.1	0.1	0.1	0.2
Market prices	0.7	3.3	4.0	1.2	2.2	3.4
Indirect taxes and government measures	0.2	0.4	0.6	0.0	0.0	0.0
CPI	**0.8**	**3.9**	**4.7**	**1.3**	**2.3**	**3.6**

Note The tables show the decomposition of the yearly average change of the consumer price index for the midpoint of the forecast range. The yearly change is the sum of so-called carry-over and incoming effects. The carry-over effect is the part of the yearly index, which can be explained by the preceding year's price changes, while the incoming effect reflects the changes in the recent year. We decomposed these indices to the sub-aggregates of the consumer price index and calculated the inflationary effects of changes in the indirect taxes, administered prices, and market prices (non-administered prices excluding indirect tax effects). The subgroups may not sum to the aggregate figure due to rounding.

Source: MNB

Table 7-2: Detailed decomposition of our inflation forecast into carry-over and incoming effects (percentage points and percent respectively)

	2021					2022				
	Average carry-over effect	Carry-over indirect tax effect	Average incoming effect	Incoming indirect tax effect	Yearly index	Average carry-over effect	Carry-over indirect tax effect	Average incoming effect	Incoming indirect tax effect	Yearly index
Food	-0.9	0.0	4.1	0.0	3.2	1.1	0.0	3.7	0.0	4.8
non-processed	-3.5	0.0	6.1	0.0	2.6	0.6	0.0	5.4	0.0	6.0
processed	0.5	0.0	3.1	0.0	3.6	1.3	0.0	3.0	0.0	4.3
Tradable goods	1.0	0.0	2.1	0.0	3.1	1.2	0.0	1.2	0.0	2.4
durables	1.3	0.0	2.4	0.0	3.7	1.0	0.0	1.3	0.0	2.3
non-durables	0.8	0.0	1.9	0.0	2.7	1.2	0.0	1.2	0.0	2.4
Market services	0.8	0.0	3.2	0.0	4.0	1.6	0.0	3.0	0.0	4.6
Market energy	1.2	0.0	0.9	0.0	2.1	0.1	0.0	0.0	0.0	0.1
Alcohol and Tobacco	3.1	1.5	1.2	4.6	10.4	0.4	0.8	1.8	0.0	3.0
Fuel	2.5	1.2	18.1	-1.4	20.4	3.5	-0.5	3.8	0.0	6.8
Administered prices	-1.1	0.0	1.7	0.0	0.6	1.0	0.0	0.5	0.0	1.5
Inflation	**0.6**	**0.2**	**3.5**	**0.4**	**4.7**	**1.3**	**0.0**	**2.3**	**0.0**	**3.6**
Core inflation	0.8	0.0	2.7	0.0	3.5	1.4	0.0	2.1	0.0	3.5

Note: The tables show the decomposition of the yearly average change of the consumer price index for the midpoint of the forecast range. The yearly change is the sum of so-called carry-over and incoming effects. The carry-over effect is the part of the yearly index, which can be explained by the preceding year's price changes, while the incoming effect reflects the changes in the recent year. We decomposed these indices to the sub-aggregates of the consumer price index and calculated their inflationary effects. The subgroups may not sum to the aggregate figure due to rounding.

Source: MNB

LIST OF CHARTS AND TABLES

List of charts

List of tables

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.

INFLATION REPORT

September 2021

Print: Prospektus Kft.

H-8200 Veszprém, Tartu u. 6.

mnb.hu

H-1054 BUDAPEST, SZABADSÁG SQUARE 9.