MACROECONOMIC AND FINANCIAL MARKET DEVELOPMENTS

BACKGROUND MATERIAL

TO THE ABRIDGED MINUTES

OF THE MONETARY COUNCIL MEETING

OF 19 OCTOBER 2021

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The background material 'Macroeconomic and financial market developments' is based on information available until 15 October 2021.

Article 3 (1) of the MNB Act (Act CXXXIX of 2013 on the Magyar Nemzeti Bank) defines achieving and maintaining price stability as the primary objective of the Magyar Nemzeti Bank. The MNB's supreme decision-making body is the Monetary Council. The Council convenes as required by circumstances, but at least twice a month, according to a pre-announced schedule. At the second scheduled meeting each month, members consider issues relevant to decisions on interest rates. Abridged minutes of the Council's rate-setting meetings are released regularly, before the next policy meeting takes place. As a summary of the analyses prepared by staff for the Monetary Council, the background material presents economic and financial market developments, as well as new information which has become available since the previous meeting.

The abridged minutes and the background materials to the minutes are available on the MNB's website at:
http://www.mnb.hu/en/monetary-policy/the-monetary-council/minutes

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1. Macroeconomic developments

1.1. Global macroeconomic environment

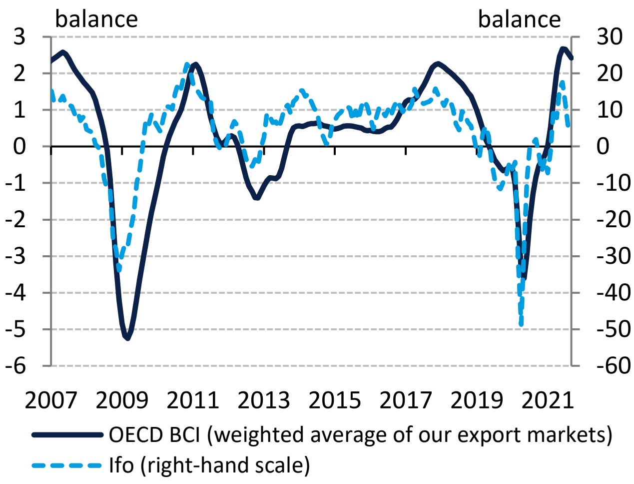
The global economic recovery continued in the second quarter of 2021. Economic recovery in the world's two largest economies – China and the United States – is stronger than in the euro area. Performance of the United Kingdom and the European Union in the second quarter of 2021 was below that of the fourth quarter of 2019, before the coronavirus pandemic. Confidence indices related to the international manufacturing and service sectors slightly deteriorated in September. The deterioration in industrial activity is primarily the consequence of the global semiconductor shortage. The sharp rise in the number of cases observed in recent weeks is already connected to the fourth wave of the coronavirus pandemic, which – looking ahead – may interrupt the recovery of the economy. In countries with higher vaccination coverage the negative impact of the potential epidemic restrictions is likely to be more moderate. In the third quarter of 2021, the external inflationary environment remained high. In the United States, inflation stood at 5.4 percent in September, exceeding analysts' expectations. According to preliminary data, euro area inflation rose to 3.4 percent in September.

Global industrial production exceeded its pre-pandemic level as early as September 2020 and has continued to surpass it ever since, while after the restart of the economies, outlook for the service sector also improved significantly. Industrial production increased despite the global semiconductor shortage in July, nevertheless, it still represents a downside risk. Prospects of the service sector improved in parallel with the rise in vaccination coverage; nevertheless, the recovery is still expected to be slow. The number of daily commercial flights moderately declined by February from the average 65-70 thousand flights registered in the second half of last year, followed by a rise from March and now, in parallel with the commencement of the travel season, it is around 90-100 thousand, which - however - is still well below the 2019 figures.

Economic recovery continued in the second quarter of 2021. In the second quarter of 2021, the economic performance of China increased by 7.9 percent year-on-year (while quarter-on-quarter it rose by 1.3 percent according to the seasonally and working-day adjusted data). Economic recovery in the world's two largest economies (China and the United States) is stronger than in the euro area. Performance of the United Kingdom and the European Union in the second quarter 2021 was below that of the fourth quarter of 2019. The countries where tourism has a larger weight within the gross national product typically show slower recovery. Economic performance of most countries is still below the pre-crisis level. The greatest lag within the European Union can be identified in Spain, Malta and Portugal. GDP reached its pre-crisis level in Ireland, Estonia, Lithuania, Luxembourg and Romania already after the first quarter, and also in Denmark, Latvia, Hungary, Greece, Finland and Poland in the second quarter.

Monthly production indicators mostly grew further in August. Industrial production in the euro area, the United States, the United Kingdom and in China rose by 5.1 percent, 5.9 percent, 3.7 percent and 5.3 percent, respectively, compared to last August. In August, the volume of retail sales grew by 2.0 percent in China and by 15.1 percent in the USA, while it stagnated in the United Kingdom and in the euro area, on an annual basis.

Chart 1 Business climate indices in Hungary's export markets



Source: OECD, Ifo

Forward-looking confidence indices related to the international manufacturing and service sectors slightly declined in September. Business sentiment in the United States and in the euro area deteriorated last month, although the value of the index remained in the growth range. German business sentiment (Ifo Business Climate Index) also fell in September (Chart 1). Purchasing Manager Index of China rose to the threshold value (50 points) in September.

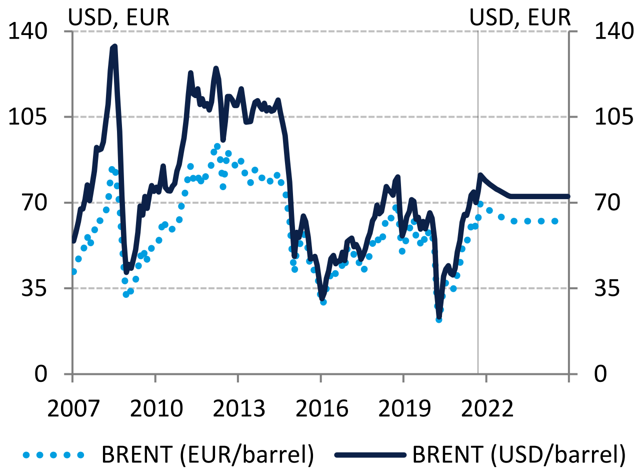
International labour market trends improved further. In the United States, the number of new unemployment benefit claims was 326,000 in the week ending on 2 October, which is a decrease compared to the previous week, but it still substantially exceeded the 2019 average (200,000). The unemployment rate declined to 4.8 percent in August. In August, euro area unemployment rate declined by 0.1 percentage point, compared to the previous month and is at 7.5 percent now.

According to preliminary data, in annual terms, euro area inflation and core inflation rose to 3.4 percent and 1.9 percent, respectively in September. The HICP figure exceeded 3.3 percent, expected by analysts, while core inflation was in line with the market consensus.

Exceeding analysts' expectations by 0.1 per cent, CPI inflation in September stood at 5.4 percent in the United States. Apart from the August figure (5.3 percent), US consumer price index has been stagnating at this level since June. In Poland the September consumer price index remained above the central bank's target, at 5.9 percent. In the Czech Republic inflation in September was 4.9 percent, significantly exceeding the 2 percent inflation target of the Czech central bank.

The sharp rise in the number of cases observed in recent weeks is already connected to the fourth wave of the coronavirus pandemic, which – looking ahead – may interrupt the recovery of the economy. In countries with higher vaccination coverage the negative impact of the potential epidemic restrictions is likely to be more moderate.

Chart 2 World market prices of Brent crude oil



Source: Bloomberg

In September 2021, the average world market price of Brent crude oil was USD 75 per barrel, and then, in the first days of October the spot price exceeded the level of USD 80 per barrel, last seen 3 years ago (Chart 2). The rise in oil prices is the combined result of several factors: due to devastation caused by Hurricane Ida, roughly 40 percent of the oil production in the Gulf of Mexico halted, as a result of which major stocks disappeared from the oil market. Growing global demand and tight supply pushed oil price quotes further up. At the regular monthly meeting of OPEC+, held in the form of a video conference on 4 October, the members of the oil cartel decided to stick to the original monthly increase in supply of 400,000 barrels in November, which pushed the world market price of Brent crude oil to a three-year high, above USD 80 per barrel and it still stands at this level. **The world market price of both industrial commodities and unprocessed food fell in September compared with the previous month.**

1.2. Domestic real economy developments

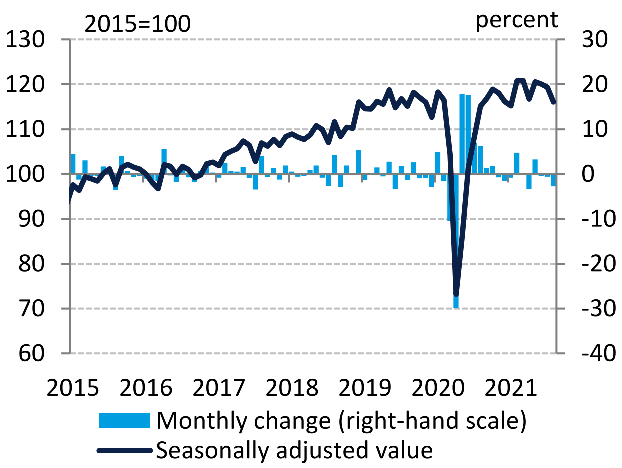
In the second quarter of 2021, Hungary's GDP rose by 17.8 percent year-on-year, while economic performance grew by 2.9 percent quarter-on-quarter. As a result, Hungary's GDP reached its pre-crisis level. Based on the GDP data on the second quarter of 2021, Hungary is at the forefront, of the European ranking, both in year-on-year and in quarter-on-quarter terms. Real time data suggest a slowdown in growth rate in the summer months, which is attributable to the higher bases of 2020 resulting from partial lifting of the restrictions. In August, industrial and construction output repeatedly fell short of their level registered in early 2020. The volume of retail sales was already close to the level observed before the outbreak of the coronavirus pandemic. Following the reopening of the economy, the realignment of the labour market commenced successfully. In August 2021, the raw unemployment rate stood at 4 percent, while the number of people in employment rose by 24,000 year-on-year, exceeding the pre-pandemic level.

1.2.1. Economic growth

As a result of the fast reopening, the Hungarian economy grew further. Based on raw data, Hungary's GDP rose by 17.8 percent year-on-year, while economic performance grew by 2.9 percent quarter-on-quarter in the second quarter of 2021.

The increase in domestic economic output exceeded the average of the euro area (+14.3 percent) and the European Union (+13.8 percent) in annual terms. Based on the GDP data registered in the second quarter of 2021, Hungary is among the best in the European ranking, both in year-on-year and in quarter-on-quarter terms.

Chart 3 Development in industrial production



Source: MNB calculation based on HCSO data

In August 2021, industrial production rose by 2.6 percent (by 0.6 percent based on calendar-adjusted data) year-on-year. Based on the seasonally and calendar adjusted data, the volume of production decreased by 2.7 percent on a monthly basis (Chart 3). In August, the volume of output fell short of the level registered in early 2020. Most of the manufacturing subsectors contributed to the annual growth; however, the output of automotive industry, representing the largest share, declined substantially. The output of automotive industry – representing the largest share in domestic output – fell by 33.7 percent, year-on-year, primarily due to the factory shutdowns resulting from the global semiconductor shortage. The manufacture of computers, electrical equipment and optical products declined by 3.7 percent. Output rose in most of the industrial sectors. The manufacture of electrical equipment rose to the largest degree (by 40.5 percent), primarily due to the continued pickup in electric engine and battery production.

In August 2021, based on raw data, the volume of construction output rose by 10.2 percent year-on-year. The level of construction output fell short of the level before the outbreak of the coronavirus pandemic and it remained below the growth trend seen in recent years. The volume of output decreased by 5.8 percent based on seasonally and calendar adjusted data. Construction of buildings rose by

16.3 percent, while other construction increased by 2.4 percent, year-on-year. The volume of new contracts concluded rose by 39.9 percent, while the construction companies' contract portfolio at the end of August increased by 22.1 percent compared to August 2020.

According to real time data, GDP growth declined in the third quarter as base effects wore off. Based on the online cash register data, turnover in August and September grew in nominal terms by 13.7 and 14.0 percent, respectively, year-on-year. Due to last year's low base air passenger traffic registered a double-digit growth in both July and August, albeit at the end of August it still fell short of the level of two years ago by 55 percent. **Catering turnover in nominal terms** already exceeded its level of 2019 in the same period since mid-June; however, by the end of September, it fell close to the level of 2020 and below that of 2019. Cinema attendance is recovering gradually after the reopening, with the decline in July still being around 20 percent compared to its level two years ago, which fell to 15 percent by September. **Road passenger and goods traffic** have been both improving strongly since mid-March, and in September they were around the level registered in 2019. In September, the **electricity load data** were close to the level of last year.

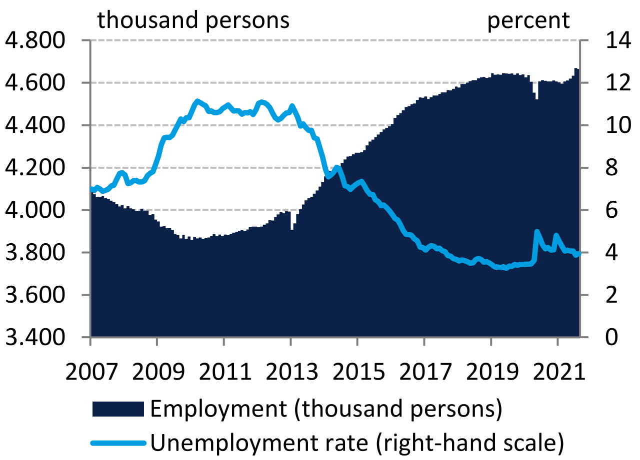
In September, **household borrowing** exceeded its previous year level by more than 30 percent, while it fell short of its level two years earlier by 10 percent. In August, the number of **housing market transactions** rose by 3 percent on average, year-on-year. **Labour market adjustment has been modest in Hungary** during the coronavirus crisis. In August 2021, the seasonally adjusted unemployment rate stood at 3.9 percent, while the number of people in employment rose by 24,000 persons year-on-year. **Google searches** related to unemployment also show a favourable picture. Online searches in Hungary for the term "unemployment benefit" and "jobseeker's allowance" are close to the levels before the outbreak of the pandemic.

According to the HCSO's preliminary data release, **in August goods exports and imports rose by 5.2 percent and 16.0 percent, respectively, in euro terms, year-on-year.** In August 2021, the merchandise trade balance showed a deficit of EUR 467 million.

In August 2021, the volume of retail sales was up by 4.6 percent based on raw data and by 4.1 percent based on data adjusted for the calendar effect, year-on-year. In August 2021, the volume of retail sales was close to the level seen before the outbreak of the coronavirus, but it significantly fell short of the growth trend of recent years. Compared to previous month the volume of sales slightly increased (+0.5 percent). The volume of retail sales rose in most shop types in August. Based on the data adjusted for the calendar effect, the volume of retail sales in food stores and groceries rose by 1.7 percent, that in non-food stores by 7.8 percent, while the volume of fuel retail sales increased by 2.3 percent year-on-year.

In August 2021, the number of tourist overnight stays at commercial accommodations slightly exceeded half of the pre-pandemic level, while it rose by more than 11.3 percent compared to August 2020. Domestic tourist overnight stays were almost 2.6 million, representing a slight increase compared to its pre-pandemic level. 59 percent of the domestic tourist overnight stays were in hotels, representing a year-on-year growth of almost 1 percent. According to the HCSO's data release, the number of overnight stays by foreign tourists in Hungary was 936,000, while a year ago it was merely 623,000. On the other hand, the number of overnight stays by foreign tourists declined by almost 56 percent compared to August 2019. 63 percent of foreign tourists stayed in hotels, with the number of overnight stays in hotels increasing by 60 percent compared to August 2020.

Chart 4 Number of persons employed and the unemployment rate



Source: HCSO

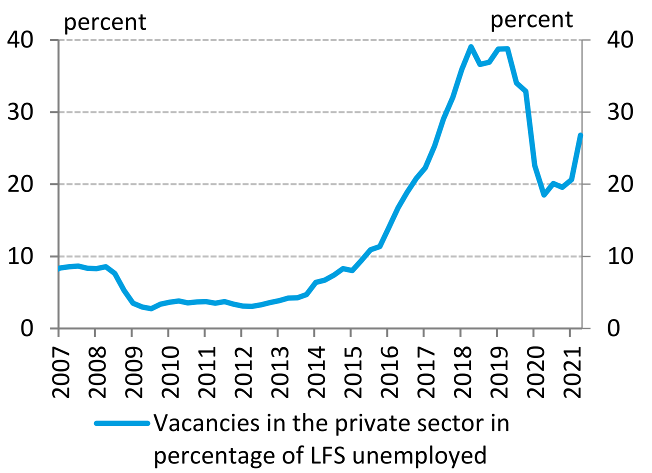
1.2.2. Employment

Based on the data of the Labour Force Survey (LFS), in August 2021 total number of the employed amounted to 4,678,000 reflecting an increase of 24,000 persons year-on-year (Chart 4). Since August 2020, the number of employees in the primary labour market rose by 55,000, while the number of public employees and the number of those working abroad declined by 13,000 persons and 16,000 persons, respectively.

In August, the number of the unemployed was 194,000, exceeding the year-on-year figure by 9,000 persons, thus the seasonally adjusted unemployment rate stood at 3.9 percent. The number of the unemployed rose by 2,000 persons compared to July. Based on the data published by the National Employment Service (Nemzeti Foglalkoztatási Szolgálat - NFSZ) in August and September the number of registered jobseekers in Hungary was 256,000 (-89,000 on an annual basis) and 250,000 (-73,000 on an annual basis), respectively.

In the second quarter of 2021, private sector vacancies amounted to 51,700, exceeding the year-on-year value by 38.5 percent and falling short of the pre-pandemic figure by merely 3 percent. **Labour demand rose substantially in both manufacturing and market services, on an annual basis.** Manufacturing job vacancies exceeded the figure a year ago by 4,200. In the market services sector, real estate, professional and administrative activities job vacancies

Chart 5 Development of labour market tightness indicator



Note: Quarterly data.
Source: National Employment Service, HCSO

increased by almost 6,000 and in the information and communication sectors by 1,500. In the rest of the sectors the rise was negligible in annual terms. Within the public sector job vacancies decreased in healthcare and increased in education. Overall, the labour market tightness indicator calculated from the ratio of job vacancies and unemployed persons, **rose significantly compared to the previous quarter**, but it still falls short of the values registered in the previous two years (Chart 5).

1.3. Inflation and wages

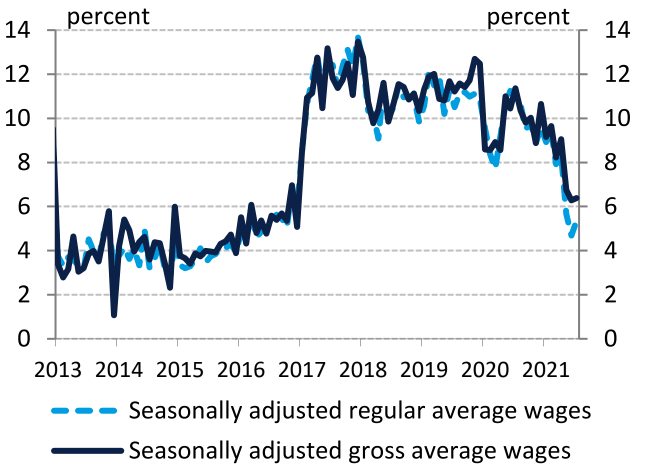
In September 2021, inflation calculated on a year-on-year basis was 5.5 percent, while both core inflation and core inflation excluding indirect taxes stood at 4.0 percent. Underlying inflation indicators capturing persistent trends (price index of demand sensitive and inflation of sticky price products and services) increased compared to the previous month. In July 2021, whole-economy average wages and private sector wages rose by 7.9 percent and 6.2 percent, respectively, year-on-year. The more moderate annual growth rate of average wages in the private sector is attributable to statistical effects.

1.3.1. Wage setting

In July 2021, gross average wages in the private sector rose by 6.2 percent year-on-year. Based on the detailed analysis of the sectors, the degree of the distortion in the gross average wage of full-time employees decreased compared to the previous months and, contrary to previous year, result in the underestimation of the wage index. Regular average wages slightly decreased compared to June, while the degree of bonus payments substantially exceeded the level of previous years.

According to seasonally adjusted data, the growth in gross average wage and regular average wage accelerated in the private sector compared to the previous month (Chart 6)**.** In the private sector wage dynamics of market services outstripped that of manufacturing. In June, based on raw data, manufacturing wages were higher by 5.0 percent year-on-year. Wages in the automotive industry – representing the largest share – increased by 6.7 percent in annual terms. In market services, HCSO registered a growth of 6.9 percent. Annual wage dynamics was around 5-10 percent in most industries. Gross wages in the financial, catering and construction sectors rose by 14.4 percent, 5.9 percent and 4.9 percent, respectively, year-on-year.

Chart 6 Dynamics of average earnings in the private sector

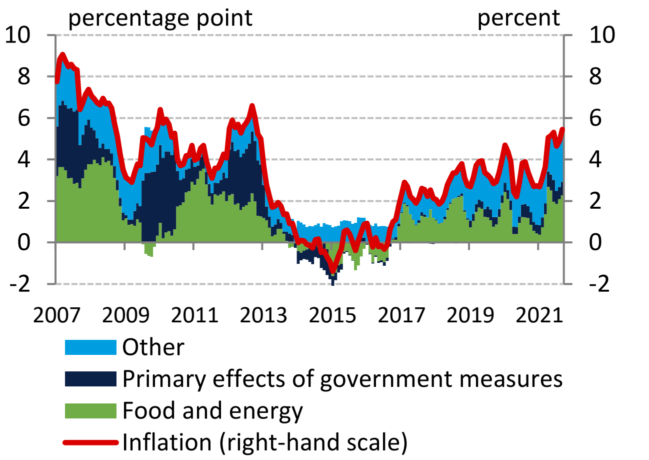


Source: MNB calculation based on HCSO data

1.3.2. Inflation developments

In September 2021, inflation calculated in annual terms was 5.5 percent, while core inflation and core inflation excluding indirect taxes stood at 4.0 percent (Chart 7)**.** Compared to the previous month, inflation increased by 0.6 percentage point and core inflation by 0.4 percentage point. Higher inflation was caused by the rise in the prices of a wide range of products and services.

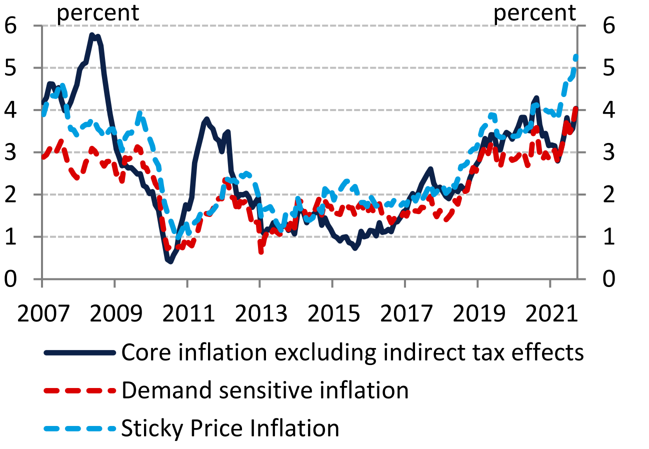
Chart 7 Decomposition of inflation



Source: MNB calculation based on HCSO data

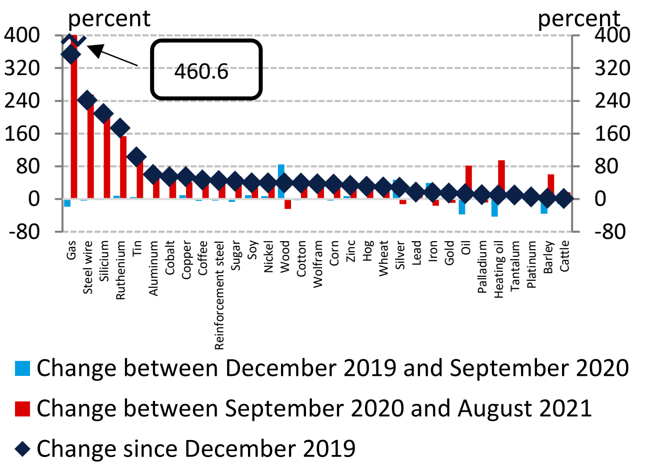
Underlying inflation indicators capturing persistent trends (inflation of demand sensitive and sticky price products and services) **increased compared to the previous month** (Chart 8). In August 2021, agricultural producer prices increased by 21.3 percent in annual terms, while domestic sales prices in sectors of consumer goods increased by 5.2 percent.

Chart 8 Measures of underlying inflation indicators



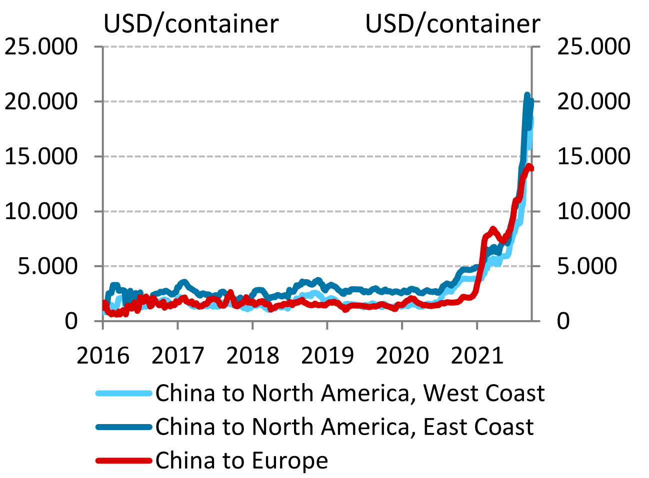
Source: MNB calculation based on HCSO data

Chart 9 Changes in major commodity prices since December 2019



Source: Bloomberg

Chart 10 Developments in the Freightos Baltic Index for shipments from China



Source: Bloomberg

1.3.3. Inflation risks

Following a temporary decline observed in the past two months, inflation started to rise repeatedly from autumn. The indicator stood at 5.5 percent in September.

The growth in inflation risks is equally attributable to international and domestic trends. Due to the different nature and management of the crisis, global economic activity and the labour market may recover faster than in the 2008/2009 crisis. **In addition to the rapid economic recovery, a loose fiscal and monetary policy stance, high public debt ratios and expanding lending, along with deglobalisation and shortening value chains, all point to rising inflation globally. The price of gas, coal and electricity** rose to a historic high in the past period (Chart 9).

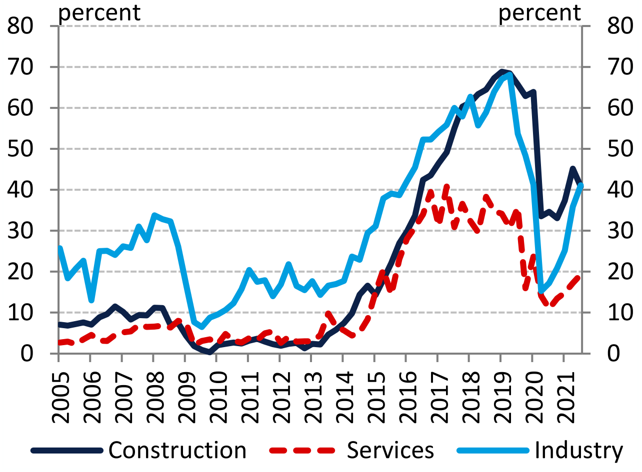
Global value chains may recover more slowly than demand, leading to increased cost pressures in global transportation and industrial production. By early October 2021, the costs of shipments from China to Europe rose by an average of 7-10 times from the level seen in summer 2020 (Chart 10). Merchants will presumably charge part of the resulting extra costs to the consumers, as a result of which the price increasing effect of the significantly higher commodity prices and shipping costs will appear also in the domestic consumer prices more widely. In addition to a fast recovery in demand, the global chip shortage is causing disruptions in industrial production, particularly in the automotive sector, which may have a knock-on effect on prices.

In addition to international developments, several factors in the Hungarian economy also point to a higher inflation path than previously expected. In the second quarter of 2021, due to the reopening of the economy and the low base of last year, Hungarian GDP grew by 17.8 percent. As regards employment, bottlenecks may be in place, especially in the services and construction sectors, in parallel with the recovery (Chart 11).

Higher than expected wage growth may persist in certain sectors as the labour market tightens, with a rise in savings over the past year, postponed consumption and the already unrestricted availability of services projecting a growth in consumption expenditures.

The anticipated economic impacts of the fourth wave represent a material downside risk. The economic impact of a new wave of the pandemic can be quantified with a high degree of uncertainty, as an unforeseen turn in the virulence of existing and new variants may occur at any time. In addition to the severity of the restrictions, the economic impact will also be influenced by the caution of the population.

Chart 11 Labour shortage as a factor limiting production in Hungary

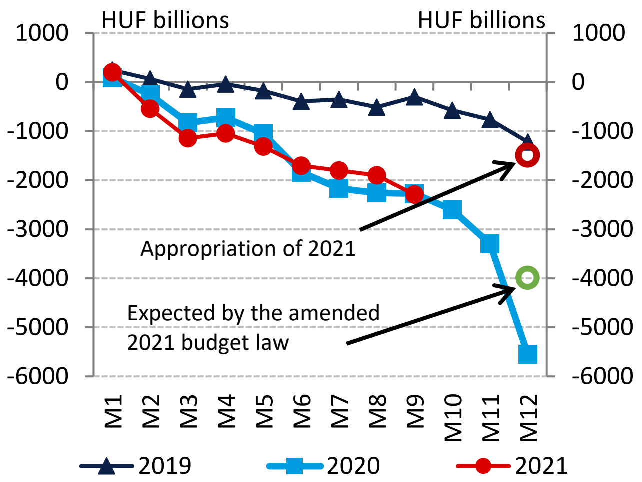


Note: Percentage of companies reporting that "Shortage of labour force" is a main factor currently limiting their production.
Source: European Commission

1.4. Fiscal developments

In September 2021, the deficit of the general government's central sub-sector amounted to HUF 391, exceeding the year-on-year deficit by more than HUF 380 billion, being the highest deficit ever measured in Hungary in September. As a result, the current year accumulated cash deficit rose to almost HUF 2,300 billion, which roughly corresponds to the accumulated deficit of the same period in 2020.

Chart 12 Intra-year cumulative cash balance of the central government budget



Source: Budget Act of 2021, Hungarian State Treasury

In September 2021, the **deficit of the general government's central sub-sector** amounted to HUF 391, exceeding the year-on-year deficit by more than HUF 380 billion, being the highest deficit ever measured in Hungary in September. As a result, the current year accumulated cash deficit rose to almost HUF 2,300 billion, which roughly corresponds to the accumulated deficit of the same period (Chart 12) in 2020.

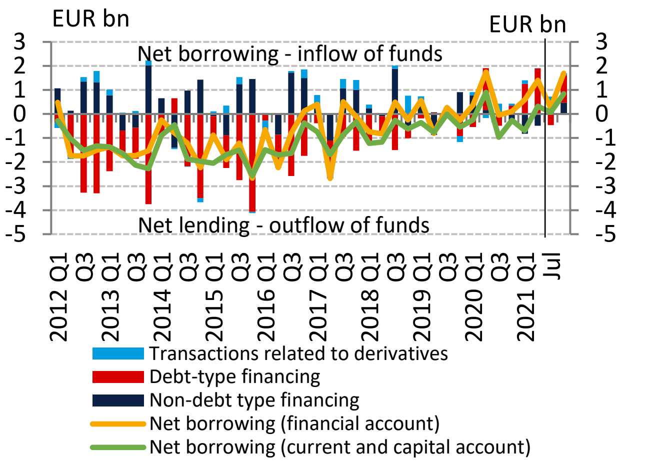
In September, **revenues of the central sub-sector** exceeded the year-on-year revenues by 9 percent (by roughly HUF 124 billion), which was primarily attributable to the rise in consumption taxes and labour tax revenues. Payments by economic organisations fell short of the amount registered last September by 28 percent (HUF 62 billion), which is attributable to the prolongation of the deadline for the submission of corporate income tax and special tax returns from May to September in the last year, due to the coronavirus pandemic.

The volume of the **central sub-sector's expenditures** in September 2021 exceeded that of year ago by 27 percent. The rise is mostly attributable to the increase in the expenditures of the central budgetary organisations; however, in terms of proportions, expenditures on housing subsidies, as well as medical and preventive care – resulting from the wage development in the healthcare sector – also grew significantly.

1.5. External balance developments

In August, the current account deficit rose above EUR 1 billion and in parallel, net borrowing also grew significantly. The growth in deficit is attributable to the declining balance of trade, the further increase in the income balance deficit and the fall in the transfer balance. In terms of trends on the financing side, foreign direct investments were at a similar level as in previous month, while the economy's debt liabilities significantly increased.

Chart 13 Structure of net lending (unadjusted transactions)



Note: Positive values indicate net borrowing (inflow of funds), while negative values indicate net lending (outflow of funds). The fundamental development of the debt from an economic viewpoint is not influenced by the conversion between unallocated and bullion balances, thus this effect has been excluded.
Source: MNB

In August, the current account deficit rose above EUR 1 billion. The deterioration in the indicator was linked to the fall in the goods balance, which was primarily attributable to the decline in the net exports of large manufacturers of transport equipment and higher energy imports. The major goods balance deficit was partially offset by the services balance surplus, where tourism continued to grow. The growth in the income balance deficit and the shortfall in the transfer balance compared to previous month acted toward a less favourable external balance.

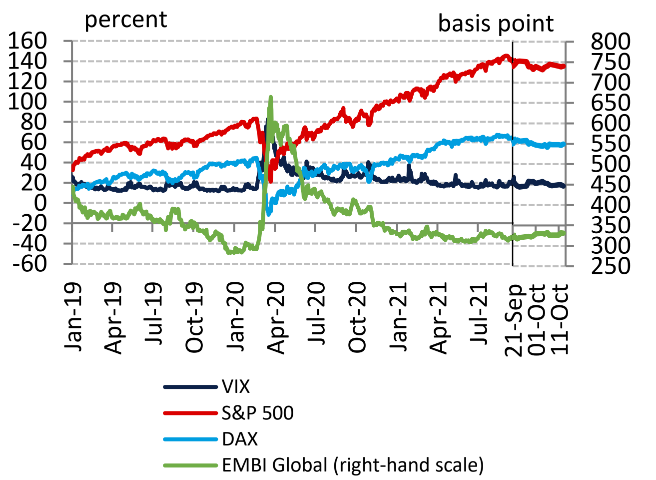
Net FDI inflow was at a similar level as in previous month, while the economy's debt liabilities significantly increased. Based on the financial accounts net foreign direct investments exceeded EUR 500 million in August as well, while all three sectors contributed to the major growth (over EUR 1.1 billion) in net external debt (Chart 13).

2. Financial markets

2.1. International financial markets

Since the last interest rate decision, global financial market sentiment has moderately deteriorated overall: investors' concerns increased particularly in the first half of the period, followed by a correction. The VIX index, measuring equity market volatility, declined to 18.6 percent, however the EMBI global spread in the emerging bond market and the MOVE index, measuring developed bond market volatility increased. In the first half of the period under review, developed and emerging stock exchange indices declined, followed by an adjustment, and thus they stand at roughly the level seen at the previous interest rate decision. The dollar has varied against the developed currencies and it appreciated by 0.7 percent against the euro. The growth in oil prices was attributable to the recovering and strengthening demand driven by rising gas prices, while on the supply side, to the decline in US crude oil stock and the maintenance of the rate of easing the production cut by OPEC+.

Chart 14 Developed market equity indices, the VIX index (left-hand scale) and the EMBI Global Index (right-hand scale)



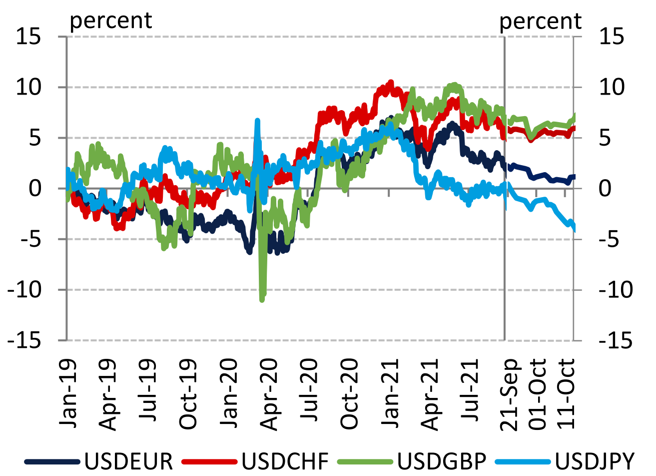
Source: Bloomberg

Overall, global financial market sentiment has deteriorated since the last interest rate decision. In the first half of the period, investors were mostly troubled by the near-bankruptcy situation of Chinese real estate investment firm Evergrande, expectations of monetary tightening in developed markets, rising energy prices and the debate over the US debt ceiling. This was followed by a moderate correction in the second half of the period. Market participants continue to pay special attention to the spread of the coronavirus' delta variant and the related tightening measures, as well as to the incoming inflation data and the forward-looking messages of major central banks.

Of the risk indicators, the VIX index, the key measure of equity market volatility, decreased compared to the level registered at the previous interest rate decision by 5.7 percentage point to 18.6 percent. The Eurovix index, characterising the German DAX stock exchange index, also declined to a similar degree. Nevertheless, the EMBI global spread in the emerging bond market increased by 11 basis points to 331 basis points, while the MOVE index, measuring developed bond market volatility, stands at 61 basis points after a rise of 2 basis points (Chart 14).

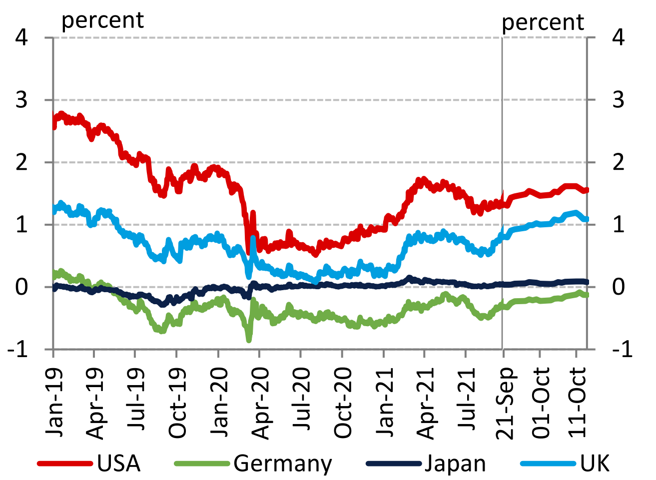
Last month, of the leading US stock indices, both S&P 500 and Dow Jones significantly fell in the first half of the period, while in a monthly comparison the first remained broadly unchanged and the latter rose by 1.3 percent. The leading European stock indices changed similarly, while the British stock exchange index rose by 2 percent. The Japanese stock exchange index fell strongly, by 4.7 percent. Overall, the developed and emerging MSCI composite indices declined by 0.3 and 0.1 percent, respectively. The fall in equity prices was mostly attributable to the decline in the price of technological stocks.

Chart 15 Developed market FX exchange rates



Note: Positive values indicate the strengthening of the variable (second) currency.
Source: Reuters

Chart 16 Yields on developed market long-term bonds



Source: Bloomberg

The dollar exchange rate has varied against the developed currencies. While the US currency appreciated against the euro by 0.7 percent, it depreciated against the Swiss franc and the British pound by 0.6 and 0.5 percent, respectively (Chart 15)**.** At the end of the period, the euro-dollar exchange rate came close to 1.16. The exchange rate of the currencies of the region against the dollar weakened, and thus the forint and koruna depreciated by 2.7 and 0.6 percent, respectively, while the zloty appreciated by 0.3 percent. Since the last interest rate decision, the price of gold rose by 1 percent, to around USD 1,800/oz.

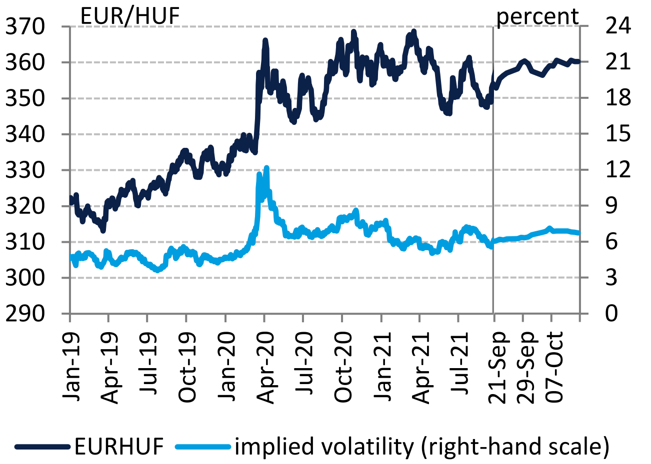
Overall, the developed bond yields increased since the last interest rate decision (Chart 16)**.** The ten-year Japanese, German and US yield rose by 4, 19 and 22 basis points, respectively and thus the German, US and Japanese yield closed the period at -0.12, 1.55 and 0.08 percent, respectively. Yields in the Mediterranean countries also rose by 5-15 basis points. The yields in the countries of the region rose more significantly: the Hungarian, Polish, Czech and Romanian long-term yields rose by 58, 67, 56 and 108 basis points, respectively.

Oil prices have risen recently. The growth in oil prices was supported by the recovering oil demand and rising gas prices, while on the supply side, by the decline in US crude oil stock and the maintenance of the rate of easing the production cut by OPEC+. **Since the interest rate decision in September, the price of Brent crude oil increased by 13 percent to USD 83.8, and the US benchmark WTI oil price by 11 percent to USD 81.1.**

2.2. Developments in domestic money market indicators

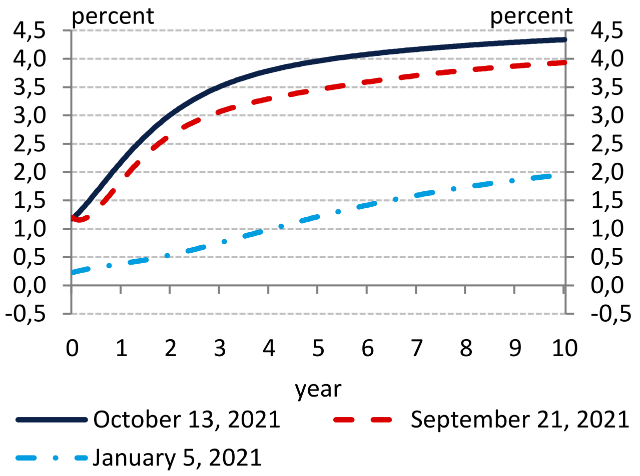
The forint depreciated against the euro since the September interest rate decision. The government securities market and the interbank yield curve shifted significantly upward. The 3-month BUBOR rose by 19 basis points to 1.85 percent. In the past month, the demand was mostly strong at government bond auctions, on the other hand, average auction yields rose overall.

Chart 17 EUR/HUF exchange rate and the implied volatility of exchange rate expectations



Source: Bloomberg

Chart 18 Shifts in the spot government yield curve



Source: MNB, Reuters

The forint depreciated against the euro since the September interest rate decision. In the first half of the period, the forint depreciated breaking away from the currencies of the region. A distinct adjustment commenced at the end of the month, followed by a repeated forint weakening; however, from then on it already showed similar dynamics as the Polish zloty. On the whole, the forint depreciated against the euro by 2 percent, while the Czech koruna and the Polish zloty appreciated during the period under review. The implied volatility of forint rose last month (Chart 17).

The 3-month BUBOR, relevant for monetary policy transmission, rose by 19 basis points to 1.85 percent since the last interest rate decision.

The government securities yield curve shifted upward (Chart 18)**.** Around the 1-year and middle section of the yield curve a rise of roughly 35 basis points and 45-50 basis points, respectively, was observed, while around the 10-year section a rise of 40 basis points was registered.

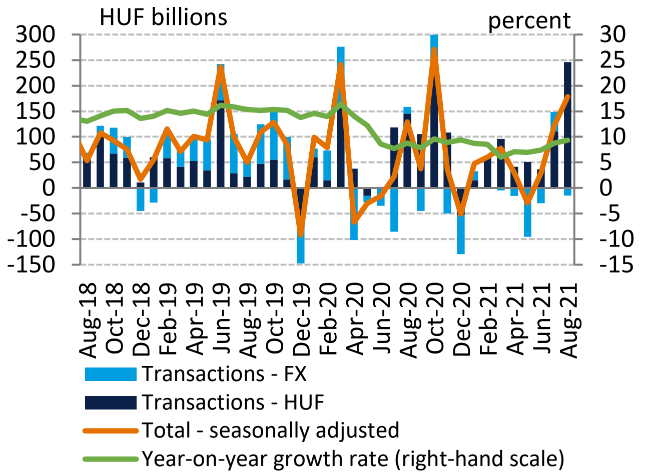
In the past month, the demand was mostly strong at government bond auctions. At the 3-month discount Treasury bill auctions the Government Debt Management Agency accepted bids for the announced volume, while it sold more than the announced volume at the 12-month Treasury bill auctions. Since the last interest rate decision, the average yield at the 3-month auctions rose from 1.11 percent to 1.25 percent, while the average auction yield at the 12-month Treasury bill auctions remained 1.53 percent. Bond auctions were characterised by strong demand, with the exception of the 30-year green bond. The Government Debt Management Agency accepted bids over the announced volume at each auction, while it sold half of the announced volume at the auction of the 30-year bond. At the latest auction, the average yield of the 10-year securities was 3.5 percent, representing an increase of 43 basis points compared to average auction yield before the interest rate decision in August. The average auction yield on the 5-year, 15-year and 20-year securities rose by 38 basis points, 24 basis points and 43 basis points to 2.91 percent, 3.52 and 3.99 percent, respectively. After a minor decline followed by a rise, the Hungarian 5-year CDS rose by 4 basis points and at present it stands at 58 basis points.

Non-residents' holdings of forint government securities decreased. Non-residents' holdings in forint government securities decreased by HUF 109 billion to HUF 4,712 billion. Meanwhile, the market share of forint government securities held by non-residents declined from 21 percent to 20.4 percent.

3. Trends in lending

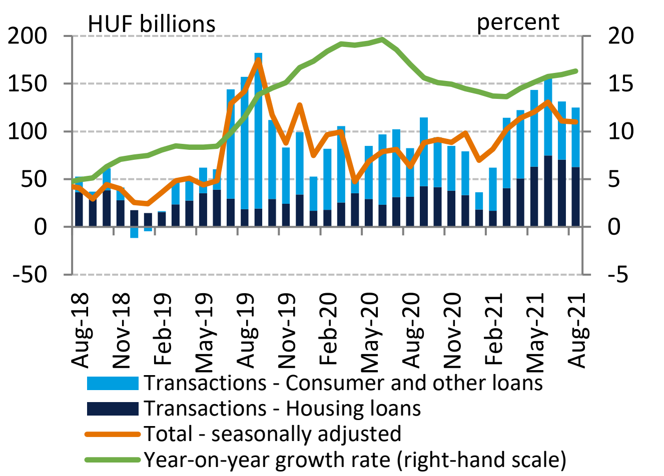
In August 2021, outstanding borrowing of non-financial corporations increased by HUF 231 billion, reflecting a rise of HUF 246 billion in forint loans and a decline of HUF 15 billion in foreign currency loans. In August, households' outstanding borrowing grew by HUF 125 billion, and as a result the annual growth rate rose to 16.3 percent.

Chart 19 Net borrowing by non-financial corporations



Source: MNB

Chart 20 Net borrowing by households



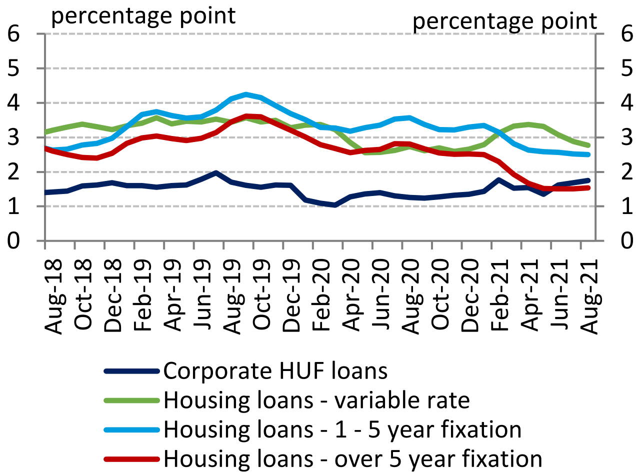
Source: MNB

In August 2021, outstanding borrowing of non-financial corporations increased by HUF 231 billion, reflecting a rise of HUF 246 billion in forint loans and a decline of HUF 15 billion in foreign currency loans (Chart 19). Due to the significant growth, the annual growth rate rose to 9.3 percent from 8.8 percent registered in previous month. In August, credit institutions disbursed new loans in the amount of HUF 203 billion, which falls short of the year-on-year figure – the period already affected by the coronavirus and the subsidised loan schemes – by 39 percent, while it exceeds the value registered two years ago by 6 percent. Within the monthly disbursements – returning to the trends of the pre-pandemic period – the disbursements of market-based loans account for a major part, almost 84 percent, of new loans. During the month under review, banks concluded non-overdraft forint contracts with enterprises under FGS Go! in the amount of almost HUF 16 billion.

In August, households' outstanding borrowing grew by HUF 125 billion, and as a result the annual growth rate rose to 16.3 percent (Chart 20). The moratorium continues to support credit dynamics; however, according to our estimate, annual growth would be robust, i.e. 8.5 percent, even after excluding the effect of that. Disbursement of new household loans amounted to HUF 232 billion, exceeding the year-on-year figure by 39 percent. On the other hand, it still falls short of the disbursements two years ago, a period not yet affected by the pandemic, primarily due to the high base resulting from the soar in prenatal baby support loans after launching the scheme in July 2019. The new measures aimed at first-time homebuyers, available from 2021, were key to the disbursement of housing loans in the amount of HUF 118 billion in August. Of the home improvement loans introduced at the beginning of the year for the pre-financing of the home improvement subsidy, banks disbursed interest-subsidised housing loans in August roughly in the amount of HUF 5 billion. However, the pre-financing of the subsidy also contributed to the disbursement of personal loans and free-purpose mortgage loans.

The smoothed interest rate spread of forint-denominated corporate loans was 1.75 percentage point in August 2021, representing an increase of 0.06 percentage point compared to the previous month (Chart 21). The average smoothed interest rate spread on variable rate housing

Chart 21 Development of corporate and household credit spreads



Note: In the case of corporate forint loans, the spread over the 3-month BUBOR. In the case of housing loans with variable interest or interest fixed for 1 year at the most, the 3-month BUBOR, while in the case of housing loans fixed for over one year, the APR-based margin above the relevant IRS.
Source: MNB

loans calculated based on the annual percentage rate (APR) also declined during the month and amounted to 2.77 percentage points. The spread on products with interest rate fixation periods longer than 1 year and up to 5 years moderately declined, while that on products with interest rate fixation periods of more than 5 years slightly increased during the month. After a decline of 0.02 percentage point, the average spread on housing loans with interest rate fixation periods longer than one year and up to 5 years reached 2.50 percentage points in August, while the spread on products with interest rate fixation periods of more than 5 years rose by 0.03 percentage point and stood at 1.54 percentage points at the end of the period under review.