MACROECONOMIC AND

FINANCIAL MARKET DEVELOPMENTS

BACKGROUND MATERIAL

TO THE ABRIDGED MINUTES

OF THE MONETARY COUNCIL MEETING

OF 14 DECEMBER 2021

DECEMBER

2021

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The background material 'Macroeconomic and financial market developments' is based on information available until 10 December 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

Economic growth in China and in the United States slowed down in the third quarter. The euro area and the EU saw a year-on-year economic growth of 3.9 and 4.1 percent, respectively. Euro area GDP still falls short of its pre-pandemic value. In October, confidence indices related to the international manufacturing and service sectors showed mixed picture in each economy. The deterioration in industrial activity was primarily caused by the global semiconductor shortage. Due to the fourth wave of the pandemic and the new variant of the coronavirus, uncertainty repeatedly increased, which may hinder the recovery of the economy. In the third quarter of 2021, the external inflationary environment remained high. Inflation in the United States was 6.8 percent in November. According to preliminary data, euro area inflation rose to 4.9 percent in November.

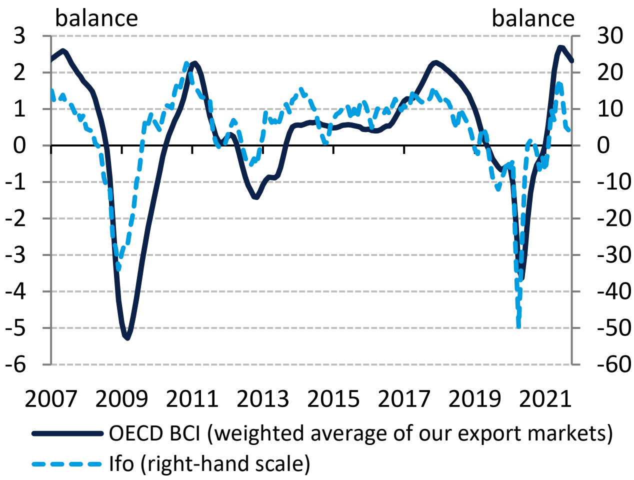
Global industrial production exceeded its pre-pandemic level already in September 2020, and has continued to outstrip it ever since then, on the other hand, its growth faltered in August, and looking ahead, the global semiconductor shortage represents a downside risk. Prospects of the service sector improved in parallel with the rise in vaccination coverage; nevertheless, the recovery is still expected to be slow. The fourth wave and the spread of the new variant poses additional risk for recovery. The number of daily commercial flights started to rise from March from the average 65-70 thousand flights registered in the second half of last year and at present it is around 90–95 thousand, which – however – is still well below the 2019 figures.

Based on preliminary data, economic growth slowed down in the third quarter of 2021. The economic performance of China rose by 4.9 percent year-on-year, and GDP of the United States also grew by 4.9 percent. In the third quarter of 2021, the euro area and the EU aw a year-on-year economic growth of 3.9 and 4.1 percent, respectively. Euro area GDP still falls short of its pre-pandemic value. According to the third-quarter data, economic performance of 17 EU economies, in total, exceeded the figure registered in the last quarter of 2019, while that of 10 countries, including Germany, fell short of it.

Monthly production indicators mostly grew further in September. In September, industrial production in the euro area and in the United Kingdom rose by 5.2 percent and by 2.9 percent, respectively, while that of the United State and China grew by 5.1 and 3.5 percent, respectively in October, year-on-year. In October, the volume of retail sales rose in the USA by 16.3 percent, in China by 4.9 percent and in the euro area by 1.4 percent, while it fell in the United Kingdom by 1.3 percent, year-on-year.

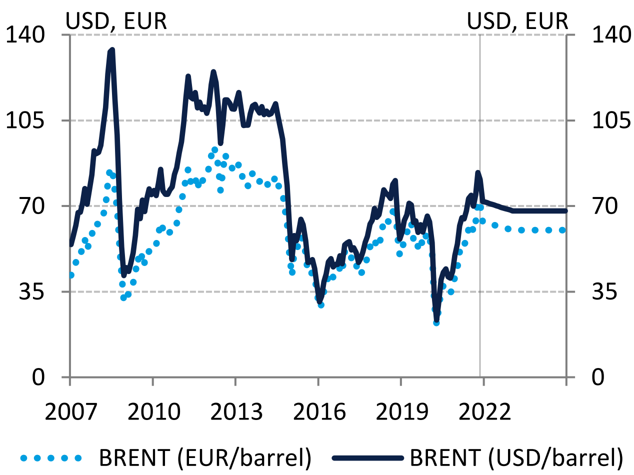
In November, forward-looking confidence indices related to the international manufacturing and service sectors

Chart 1 Business climate indices in Hungary's export markets



Source: OECD, Ifo

Chart 2 World market prices of Brent crude oil



Source: Bloomberg

show a mixed picture in the individual economies. Business sentiment in the euro area moderately improved, while it declined in Germany (Ifo Business Climate Index) in November (Chart 1). Purchasing Manager Index of both the United States and China exceeded the threshold value (50 points) in November.

International labour market trends improved further. In the United States, the number of new unemployment benefit claims was 222,000 in the week ending on 27 November, which is an increase compared to the previous week, and it still exceeds the 2019 average (200,000). The unemployment rate declined to 4.2 percent in November. The euro area unemployment rate declined, compared to the previous month and is at 7.3 percent in October.

According to preliminary data, in annual terms, euro area inflation and core inflation rose to 4.9 percent and 2.6 percent, respectively in November. Preliminary data exceed analysts' expectations of 4.5 percent for inflation and 2.3 percent for core inflation.

CPI inflation in November stood at 6.8 percent in the United States. Based on preliminary estimates, the November consumer price index remained above the central bank's target, at 7.7 percent in Poland. In the Czech Republic inflation in October was 5.8 percent, significantly exceeding the 2 percent inflation target of the Czech central bank.

The sharp rise in the number of cases, seen in recent weeks is related to the fourth wave of coronavirus, which – looking ahead – may restrict 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. However, the emergence of the new variant represents yet another uncertainty factor.

In November 2021, the average world market price of Brent crude oil was USD 81 per barrel, and then, in the first days of December the spot price declined close to USD 70 per barrel (Chart 2). The decline is attributable to the announcement by OPEC member countries to increase production. The group agreed to raise the daily volume of supply by 400,000 barrels per day in January. As a result of the news, the price of WTI and Brent fell to USD 64 and USD 68, respectively, for a while. The announcement was well received by market participants, as many of them expected OPEC+ to postpone the increase in output amid growing concerns about the spread of the omicron variant. Oil prices fell by more than 20 percent since the end of October due to a concerted strategic reserve release by the USA and its allies and the recent emergence of a new virus variant.

According to the latest World Bank data, commodity prices in dollar terms fell by 2.4 percent in November compared to previous month. The decline in the prices of oil (-2.6 percent) and metals (-8.5 percent) was somewhat offset by the rise in food prices (1.4 percent).

1.2. Domestic real economy developments

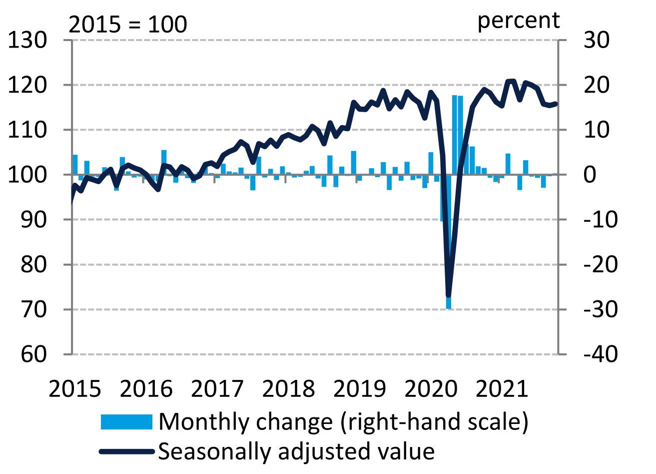
In the third quarter of 2021, Hungary's GDP rose by 6.1 percent year-on-year, while economic performance grew by 0.7 percent quarter-on-quarter. In an international comparison, the recovery of the Hungarian economy is in the mid-range of the EU ranking. Available real time data suggest that economic growth has continued in the recent period. On the other hand, some real time data already reflect the impact of the fourth wave of the coronavirus pandemic. In October, industrial output repeatedly fell short of their level in early 2020. However, the volume of retail sales and construction output moderately exceeded their pre-pandemic levels. Last month the recovery of the labour market continued. In October 2021, the raw unemployment rate stood at 3.9 percent, while the number of people in employment rose by 86,000 year-on-year, surpassing pre-pandemic levels.

1.2.1. Economic growth

The Hungarian economy continued to grow in the third quarter. Based on raw data, Hungary's GDP rose by 6.1 percent year-on-year, while economic performance grew by 0.7 percent quarter-on-quarter in the third quarter of 2021. In an international comparison, the recovery of the Hungarian economy is in the mid-range of EU ranking. The seasonally and calendar adjusted level of Hungary's GDP exceeded the figure registered in the fourth quarter of 2019 by 0.6 percent.

The performance of most sectors grew year-on-year, also supported by the low base of previous year. The output of industry grew at a moderate pace, by 2.5 percent, construction value added increased by 20.1 percent and that of agriculture declined by 3.8 percent year-on-year. Services' value-added increased by 6.8 percent. All service sub-sectors saw a year-on-year increase, with the strongest growth registered by in accommodation and catering services (+21.6 percent), due to the low bases of last year. On the consumption side, the value added of domestic demand items developed favourably, while the contribution of net exports was negative in the third quarter. **Households' consumption expenditures increased by 5.2 percent in year-on-year terms.** The largest growth was registered in services consumption (+10.4 percent) Value added by gross fixed capital formation was up by 9.6 percent year-on-year. Growth in the volume of building investments exceeded that in machinery and equipment investments. The growth in the volume of exports (+1.4 percent) fell short of that of imports (+5.6 percent). Net exports reduced GDP growth in the third quarter by 3.2 percentage points.

Chart 3 Development in industrial production



Source: MNB calculation based on HCSO data

In October 2021, industrial production decreased by 3.4 percent (by 2.7 percent based on calendar-adjusted data) year-on-year. Based on the seasonally and calendar adjusted data, the volume of production increased by 0.3 percent on a monthly basis (Chart 3). In October, the volume of output fell short of the level registered in early 2020. HCSO registered a growth in most of the manufacturing subsectors. However, the output of automotive industry, representing the largest share, declined significantly, primarily due to the factory stoppages caused by the global semiconductor shortage. The manufacture of computers, electrical equipment and optical products also declined.

In September 2021, based on raw data, the volume of construction output rose by 14.2 percent year-on-year. The level of construction output reached the level before the outbreak of the coronavirus pandemic, but it remained below the growth trend seen in recent years. The volume of output rose by 4.2 percent compared to previous month, based on seasonally and calendar adjusted data. Construction of buildings rose by 21.2 percent, while other construction increased by 6.7 percent, year-on-year. The volume of new contracts concluded fell by 16.1 percent, while the construction companies' contract portfolio at the end of August increased by 12.9 percent compared to September 2020.

According to the available real-time data, growth in GDP has continued in the past period. On the other hand, some real time data already reflect the impact of the fourth wave of the coronavirus pandemic. Based on the online cash register data, turnover in October grew in nominal terms by 16.6 percent, year-on-year. Due to last year's low base air passenger traffic registered a triple-digit growth in October, albeit at the end of the month it still fell short of the level of two years ago by 47 percent. Catering turnover in nominal terms already exceeded its level of 2019 in the same period since mid-June. Cinema attendance has gradually declined in parallel with the worsening of the pandemic situation. While in October turnover exceeded the level registered two years ago by 10 percent on average, in October the number of visitors declined by 45 percent. Road passenger and goods traffic have been both improving strongly since mid-March, and in November they were around the level registered in 2019. In November, the electricity load data were also around last year's levels.

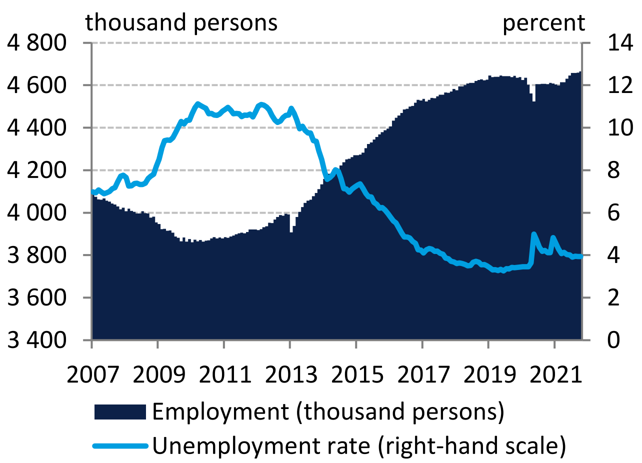
In November, **household borrowing** fell short of its level registered a year earlier by 2 percent on average. In November, the number of **housing market transactions** rose by 8 percent on average, year-on-year. **Labour market adjustment has been modest in Hungary** during the coronavirus crisis. The seasonally adjusted unemployment rate stood at 3.9 percent in October 2021. Employment is at the peak of the market economy period, based on seasonally adjusted data. In October, based on adjusted data, the number of people in employment exceeded the level of December 2019, before the coronavirus pandemic, by 58,000. **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 October goods exports and imports rose by 0.9 percent and 14.4 percent, respectively, in euro terms, year-on-year.** In October 2021, the merchandise trade balance showed a deficit of EUR 335 million.

In October 2021, the volume of retail sales was up by 5.7 percent based on raw data and on data adjusted for the calendar effect, year-on-year. Thus construction output slightly exceeded its level registered before the coronavirus pandemic, but materially fell short of the growth trend of past years. Compared to previous month the volume of sales slightly increased (+0.3 percent). The volume of retail sales rose in most shop types in September. Based on the data adjusted for the calendar effect, the volume of retail sales in food stores and groceries rose by 3.4 percent, that in non-food stores by 6.3 percent, while the volume of fuel retail sales increased by 11.5 percent year-on-year.

In October 2021, the number of tourist overnight stays at commercial accommodations was almost two-thirds of the pre-pandemic level, while it rose by 79.0 percent compared to September 2020. In October, domestic tourist overnight stays exceeded 1.0 million, which fell short of the level registered in the same period of 2019 by 10.4 percent. 77 percent of the domestic tourist overnight stays were in hotels. According to the HCSO’s data release, the number of overnight stays by foreign tourists in Hungary was nearly 694,000, while a year ago it was merely 104,000. On the other hand, the number of overnight stays by foreign tourists halved compared to October 2019. 85 percent of foreign tourists stayed in hotels.

Chart 4 Number of persons employed and the unemployment rate



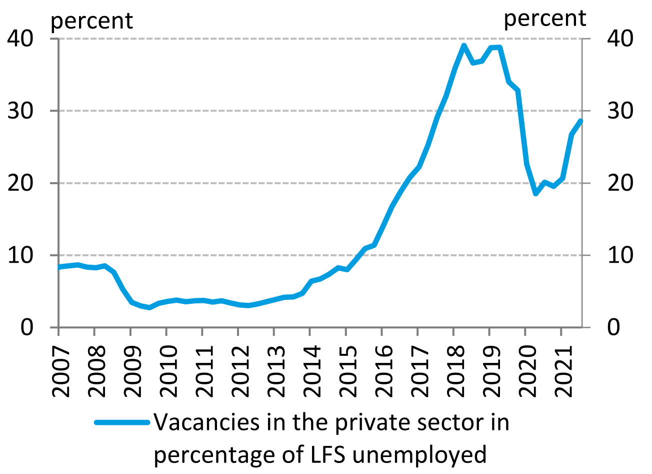
Source: HCSO

1.2.2. Employment

Based on the data of the Labour Force Survey (LFS), in October 2021 total number of the employed amounted to 4,688,000 reflecting an increase of 86,000 persons year-on-year (Chart 4). Since October 2020, the number of employees in the primary labour market rose by 102,000 persons, while the number of public employees and the number of those working abroad declined by 17,000 and 2,000 persons, respectively.

In October, the number of the unemployed was 189,000, falling short of the year-on-year figure by 9,000 persons, and as a result, on the whole the seasonally adjusted unemployment rate stood at 3.9 percent. Based on seasonally adjusted data, in October the number of the unemployed rose by one thousand persons compared to September. Based on the data published by the National Employment Service (Nemzeti Foglalkoztatási Szolgálat - NFSZ) in October and November the number of registered jobseekers in Hungary was 246,000 (-60,000 on an annual basis) and 242,000 (-54,000 on an annual basis), respectively.

Chart 5 Development of labour market tightness indicator



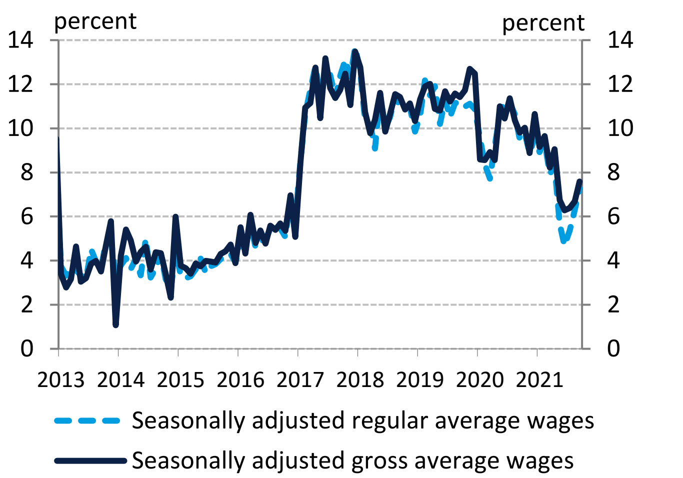
Note: Quarterly data.
Source: National Employment Service, HCSO

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 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

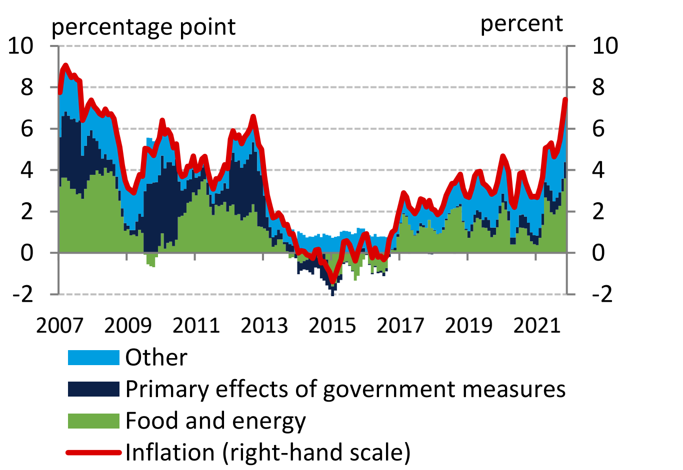
In November 2021, inflation calculated on a year-on-year basis was 7.4 percent, while both core inflation and core inflation excluding indirect tax effects stood at 5.3 percent. Underlying inflation indicators capturing persistent trends (price index of demand sensitive and inflation of sticky price products and services) increased compared to the previous month. In September 2021, whole-economy average wages and private sector wages rose by 9.1 percent and 8 percent, respectively, year-on-year. The degree of statistical effects in the gross average wages in the private sector significantly declined compared to recent months.

Chart 6 Dynamics of average earnings in the private sector



Source: MNB calculation based on HCSO data

Chart 7 Decomposition of inflation



Source: MNB calculation based on HCSO data

1.3.1. Wage setting

In September 2021, gross average wages in the private sector rose by 8 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 significantly decreased compared to the previous months and, contrary to previous year, result in the underestimation of the wage index. Regular average wages moderately decreased compared to previous month; however, the degree of the decline was smaller compared to September of previous years. The degree of bonus payments remained broadly unchanged compared to the level of previous years.

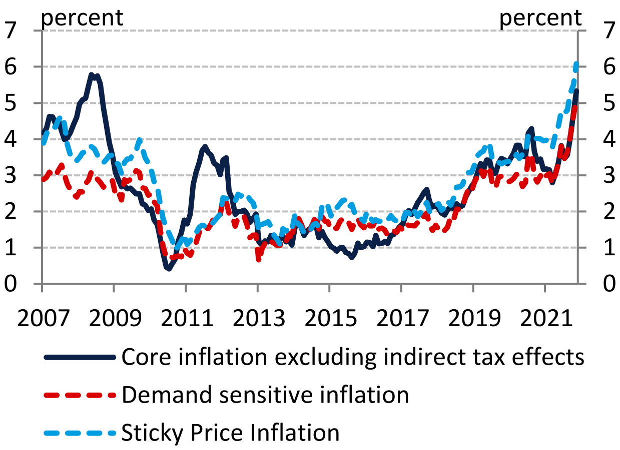
According to seasonally adjusted data, the growth in gross average wage and regular average wage accelerated in the private sector compared to the previous month (Chart 6)**.** In the private sector wage dynamics of market services outstripped that of manufacturing. In September, based on raw data, manufacturing wages were higher by 7.1 percent year-on-year. Wages in the automotive industry – representing the largest share – increased by 6 percent in annual terms. In market services, HCSO registered a growth of 8.3 percent. Annual wage dynamics was around 5-10 percent in most industries. Gross wages in the financial, catering and construction sectors rose by 8.2 percent, 10.6 percent and 9.6 percent, respectively, year-on-year.

1.3.2. Inflation developments

In November 2021, inflation calculated in annual terms was 7.4 percent, while core inflation and core inflation excluding indirect taxes stood at 5.3 percent (Chart 7)**.** Compared to the previous month, inflation increased by 0.9 percentage point and core inflation by 0.6 percentage point. Higher inflation was caused by the rise in the prices of a wide range of products and services.

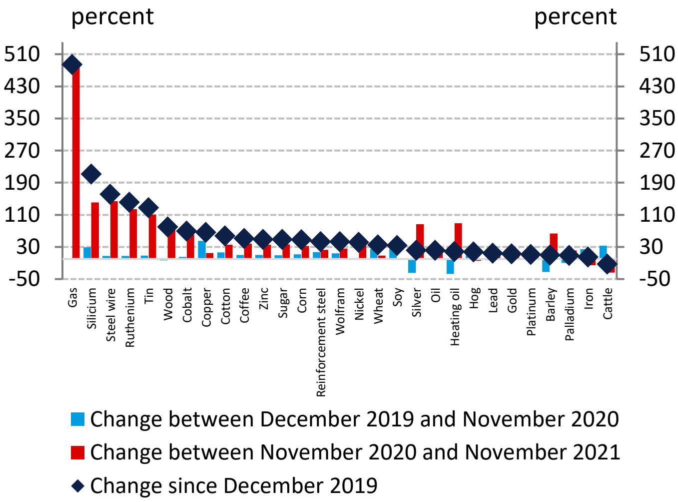
Underlying inflation indicators capturing persistent trends (inflation of demand sensitive and sticky price products and services) **increased compared to the previous month** (Chart 8). In September 2021, agricultural

Chart 8 Measures of underlying inflation indicators



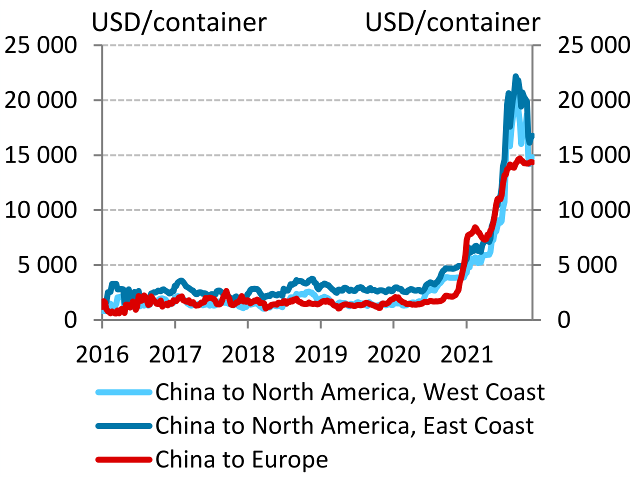
Source: MNB calculation based on HCSO data

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

producer prices increased by 23.6 percent in annual terms. In October, domestic sales prices in sectors of consumer goods increased by 7.0 percent.

1.3.3. Inflation risks

Following a temporary decline in summer, inflation started to rise repeatedly from autumn. The indicator stood at 7.4 percent in November.

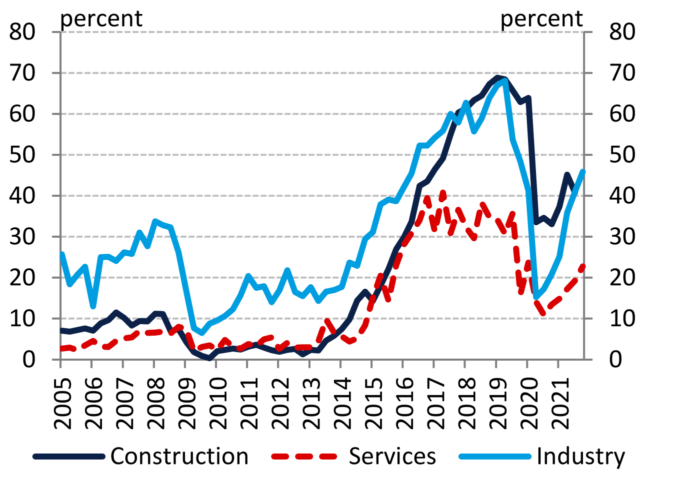
The growth in inflation risks is equally attributable to international and domestic trends. Due to the different nature and management of the crisis, global economic activity and the labour market may recover faster than in the 2008/2009 crisis. **In addition to the rapid economic recovery, a globally 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.** Of the prices of key **commodities** that of gas, coal and electricity rose to a historic high in the past period (Chart 9). On average, gas prices in the first half of this year rose to more than four times the average level in 2019, while electricity prices more than tripled.

Global value chains may recover more slowly than demand, leading to increased cost pressures in global transportation and industrial production. By November, the costs of shipments from China to Europe rose by almost seven times in one year (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 domestic factors in the Hungarian economy also point to a significantly higher inflation path than previously expected. In the third quarter of 2021, due to the reopening of the economy, Hungarian GDP grew by 6.1 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, which may project a growth in consumption expenditures through the rise in savings over the past year, postponed consumption and the already unrestricted availability of services.

Chart 11 Labour shortage as a factor limiting production in Hungary



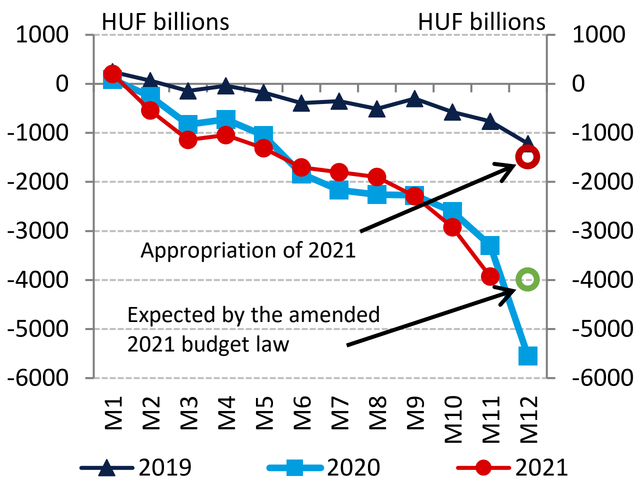
Note: Percentage of companies reporting that "Shortage of labour force" is a main factor currently limiting their production.
Source: European Commission

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.

1.4. Fiscal developments

In November 2021, the deficit of the general government's central sub-sector amounted to HUF 1,009 billion, exceeding the year-on-year deficit by HUF 315 billion, which was the highest deficit in nominal terms in November, ever measured in Hungary. In 2021, the accumulated cash deficit rose to almost HUF 3,931 billion, which is above the accumulated deficit in the same period in 2020 by HUF 633 billion.

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



Source: Budget Act of 2021, Hungarian State Treasury

In November 2021, the **deficit of the general government's central sub-sector** amounted to HUF 1,009 billion, exceeding the year-on-year deficit by HUF 315 billion, being the highest deficit in nominal terms ever measured in Hungary in November. The accumulated cash deficit of the current year rose to HUF 3,931 billion, which exceeds the accumulated deficit of the same period in 2020 by HUF 633 billion (Chart 12).

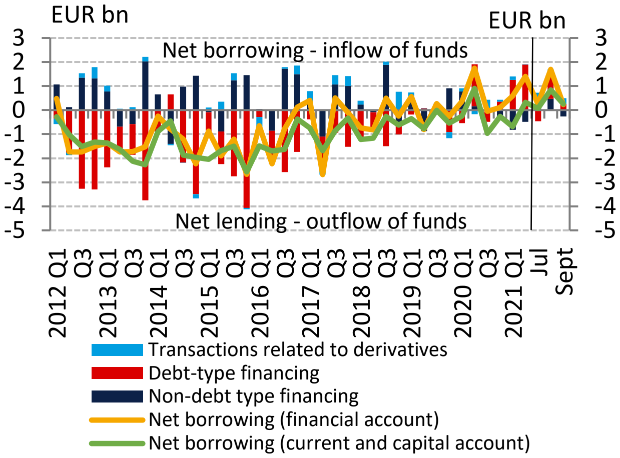
In November, **tax and contribution revenues of the central sub-sector** exceeded the year-on-year revenues by 10 percent (by roughly HUF 123 billion), which was primarily attributable to the rise in the revenues of consumption taxes, as well as taxes and contributions charged on labour incomes. Within tax revenues, VAT revenues increased by HUF 46 billion, as well as labour tax and contribution revenues by HUF 66 billion, respectively, on a year-on-year basis.

The volume of the **central sub-sector's expenditures** in November 2021 exceeded that of the previous year by 30 percent. The rise is mostly connected to the expenditures related to EU transfers and – due to the payment of the pension bonus and the second supplementary pension increase – to pension and pension-type expenditures. Furthermore, in terms of proportions, expenditures on housing subsidies and medical and preventive care also grew significantly.

1.5. External balance developments

In September the current account deficit amounted to almost EUR 400 million. In addition to net FDI outflow, debt liabilities of the economy also grew further.

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 September the current account deficit amounted to almost EUR 400 million. The still significant deficit, which, however, falls short of that of previous month, is mainly attributable to developments in the trade balance. Although the goods balance improved in September, due to the continued moderate vehicle exports and high energy imports, it significantly falls short of the level seen a year ago. On the other hand, improvement in the services balance faltered in September, mostly due to the decline in tourism resulting from the fourth wave of the pandemic. The income balance deficit and the transfer balance remained broadly at the level of previous month.

In addition to net FDI outflow, debt liabilities of the economy also grew further (Chart 13). According to the financial account data, net foreign direct investments declined by roughly EUR 300 million, while the increase of almost EUR 300 million in net external debt is mostly connected to the growth in the net external debt of the consolidated government.

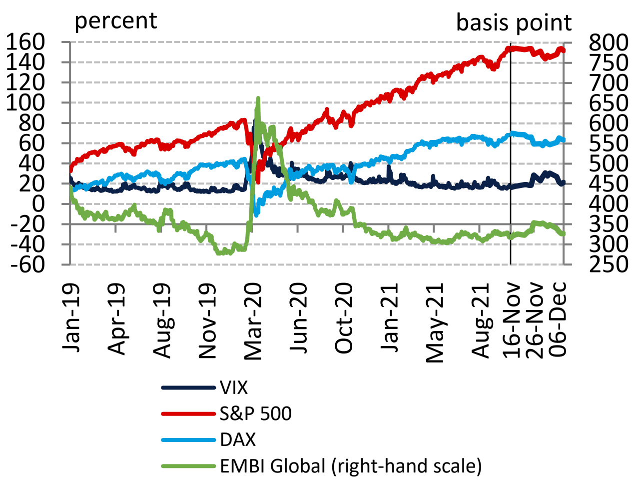
2. Financial markets

2.1. International financial markets

Global investor sentiment deteriorated since the last interest rate decision. The VIX index, measuring equity market volatility and the EMBI Global spread in the emerging bond market rose to 21.6 percent and 327 basis points, respectively. The leading stock indices fell during the period under review. The dollar has varied against the developed currencies and it appreciated by 0.3 percent against the euro. Oil prices declined over the period, falling sharply at the beginning of the period due to the repeated spread of the coronavirus, followed by a slight improvement in the oil market sentiment at the end of the period.

In the period since the last interest rate decision investor sentiment deteriorated. During the period under review the focus of the market was mainly on the spread of the delta variant of the coronavirus and the emergence of the new, omicron variant. In addition, market sentiment was influenced by the higher-than-expected inflation data, the statements of the policymakers of major central banks and the energy price developments.

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



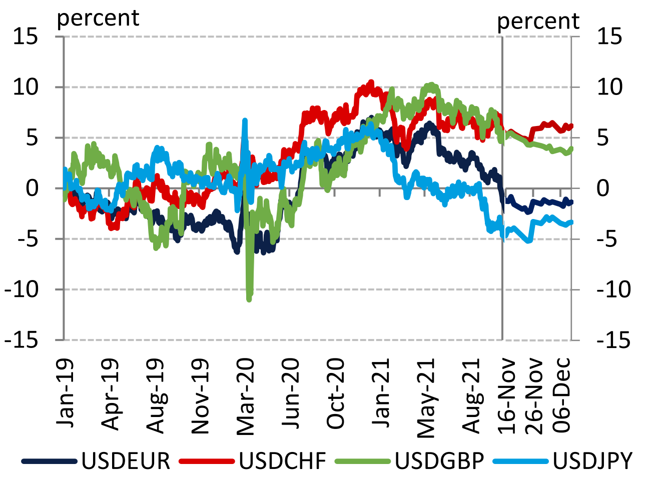
Source: Bloomberg

Of the risk indicators, the VIX index, the key measure of equity market volatility, increased compared to the level registered at the previous interest rate decision by 5 percentage points to 21.6 percent, while the index characterising the German DAX stock exchange index increased by 8 percentage points (Chart 14). The EMBI Global spread in the emerging bond market rose by 9 basis points to 327 basis points, while the MOVE index, measuring developed bond market volatility, stands close to 80 basis points after a fall of 2 basis points.

Last month, the leading US and European stock indices typically lowered. Of the leading US indices, the S&P, the Dow Jones and the Nasdaq dropped by 0.7, 1.1 and 2.9 percent, respectively. Of the European leading stock market indices, the German DAX fell by 3.7 percent, while the Japanese and Chinese stock exchange indices were down by 3.6 and 5.7 percent, respectively. Overall, the developed and emerging MSCI composite indices declined by 1.1 and 3.8 percent, respectively.

The dollar slightly appreciated by 0.3 percent **against the euro**, and by 1.6 percent against the pound sterling (Chart 15). The US currency depreciated against the Japanese yen and the Swiss franc by 1.2 and 0.7 percent, respectively. At the end of the period, the euro-dollar exchange rate was close to 1.13. Emerging market currencies, and among them also most currencies of the region, generally weakened against the dollar, with the forint and the leu depreciating by 0.3 percent and the Czech koruna by 1 percent. However, the Polish zloty appreciated by 0.9 percent. Gold and silver prices

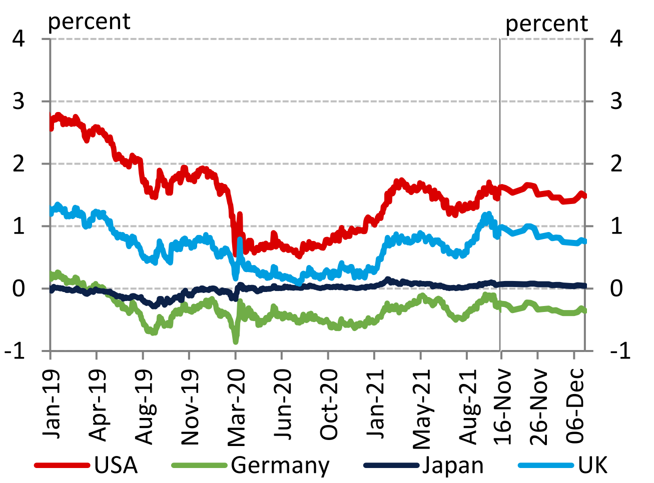
Chart 15 Developed market FX exchange rates



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

Source: Reuters

Chart 16 Yields on developed market long-term bonds



Source: Bloomberg

fell by 4.3 and 11.5 percent, respectively, since the previous interest rate decision, with gold falling to around USD 1,771 per ounce. Bitcoin plunged by almost 21 percent below USD 48,000, causing a major fall also in the price of other crypto currencies. Market commentaries imply that the fall in crypto currency prices may be linked to anticipated monetary tightening measures in developed markets, which will significantly tighten liquidity in the market.

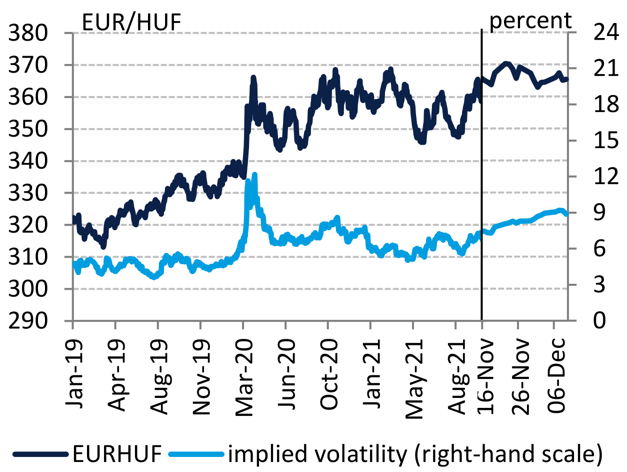
Overall, the developed bond yields declined since the last interest rate decision (Chart 16)**.** The ten-year Japanese, German, US and UK yield fell by 3, 11, 14 and 24 basis points, respectively and thus the Japanese, German, US and UK yield closed the period at 0.04, -0.36, 1.5 and 0.75 percent, respectively. Yields in the Mediterranean countries showed a mixed picture: Spanish yields fell by 9 basis points, while the Italian and Greek yields rose by 3 and 15 basis points, respectively. Yields in most countries of the region continued to rise: the Hungarian, Romanian and Polish long-term yield rose by 35, 32 and 20 basis points, respectively, while the Czech yield fell by 25 basis points.

Oil prices have recently significantly declined. At the beginning of the period, the drop in oil prices was caused by expectations of a release of US strategic reserves, then tensions were eased by OPEC+ continuing to expand production despite the US move, but finally the emergence of the omicron variant of the coronavirus caused a sharp fall in oil prices. Oil prices rose again at the end of the period as global sentiment improved, **however, since the interest rate decision in November, the price of Brent crude oil decreased by 9.7 percent to USD 74.4, while the US benchmark WTI oil price fell by 12.2 percent to USD 70.9.**

2.2. Developments in domestic money market indicators

Since the November interest rate decision, the forint exchange rate remained broadly unchanged against the euro on the whole, under major volatility. The government securities market yield curve shifted significantly upward. The 3-month BUBOR rose by 139 basis points to 3.65 percent. In the past month, there was changing demand 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



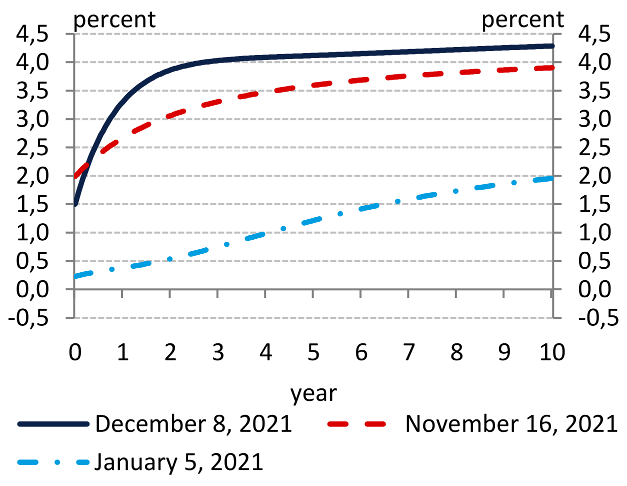
Source: Bloomberg

Overall, the forint exchange remained unchanged against the euro since the November interest rate decision. (Chart 17). However, within the period the exchange rate was more volatile than usual. A number of international and domestic factors pointed towards a weakening over the period, while a strengthening was typically observed around the time when the raising of the one-week deposit rate was announced. The forint moved with the region for most of the period. Including the correction at the end of the period, the forint remained broadly unchanged against the euro, while the Polish zloty weakened (0.7 percent) and the Czech koruna strengthened. (0.8 percent). The implied volatility of forint was higher than last month.

The 3-month BUBOR, relevant for monetary policy transmission, rose by 139 basis points to 3.65 percent since the last interest rate decision.

The government securities yield curve shifted upward (Chart 18**).** Around the 1-year section of the yield curve a rise of roughly 70 basis points, while at the middle section and around the 10-year section a rise of 75-80 and 40-45 basis points, respectively, was registered.

Chart 18 Shifts in the spot government yield curve



Source: MNB, Reuters

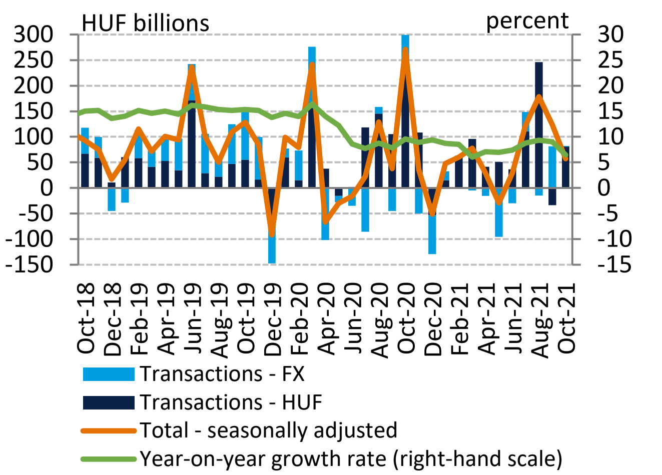
In the past month, there was changing demand at government bond auctions. At the 3-month and 12-month discount Treasury bill auctions the Government Debt Management Agency accepted bids for a slightly lower volume than announced, while in the medium-term segment it accepted bids over the announced volume on several occasions. In the case of securities with the longest maturity, it typically accepted the announced volume. Since the last interest rate decision, the average yield at the 3-month auctions rose from 2.22 percent to 2.56 percent, while the average auction yield at the 12-month Treasury bill auctions increased from 2.75 percent to 3.01 percent. At the latest auction, the average yield on the 10-year securities was 4.6 percent, while the average yield on the 20-year and 5-year securities was 4.62 and 4.28 percent, respectively. The Hungarian 5-year CDS spread remained unchanged, and currently stands at 53 basis points.

Non-residents' holdings of forint government securities increased. Non-residents' holdings in forint government securities increased by HUF 107 billion to HUF 4,610 billion. The market share of non-residents' holding in forint government securities remained unchanged, still standing at around 20 percent.

3. Trends in lending

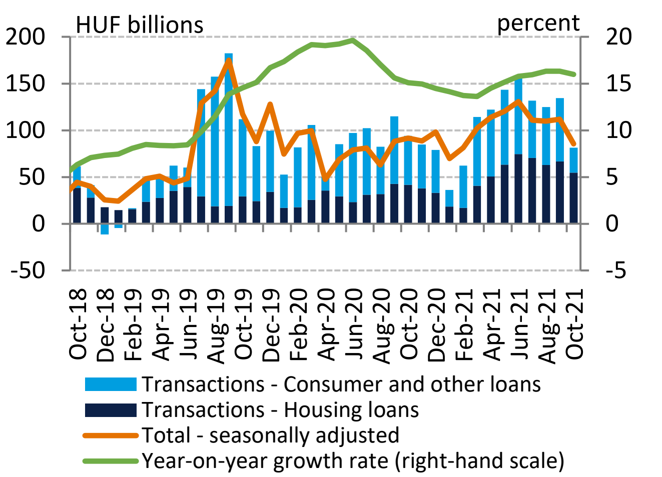
In October 2021, outstanding borrowing of non-financial corporations increased by HUF 82 billion, reflecting a rise of HUF 81 billion in forint loans and HUF 1 billion in foreign currency loans. In October, outstanding borrowing of households increased by HUF 81 billion, and thus the annual growth rate reached 16 percent.

Chart 19 Net borrowing by non-financial corporations



Source: MNB

Chart 20 Net borrowing by households



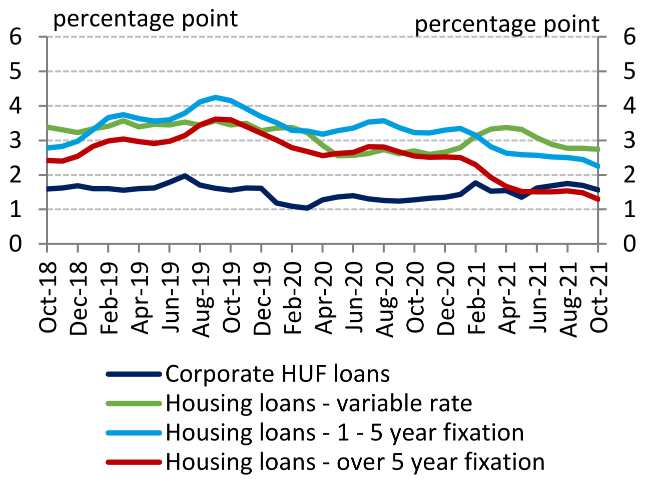
Source: MNB

In October 2021, outstanding borrowing of non-financial corporations increased by HUF 82 billion, reflecting a rise of HUF 81 billion in forint loans and HUF 1 billion in foreign currency loans (Chart 19). The annual growth rate fell to 6.4 percent from 9 percent of the previous month, which is attributable to the removal of last October's outstanding transaction data of HUF 300 billion from the calculation. Together with the bond transactions in the balance sheet of credit institutions, the annual growth rate in the month comes to 12 percent, which reflects the increasing importance of BGS in corporate funding. In September, credit institutions disbursed new loans in the amount of HUF 244 billion, which falls short of the year-on-year figure – the period already affected by the coronavirus and the subsidised loan schemes – by 46 percent and by 19 percent of the figure registered two years ago. Within the monthly disbursements – returning to the trends of the pre-pandemic period – the disbursements of market-based loans account for a major part, 87 percent, of new loans.

In October, outstanding borrowing of households increased by HUF 81 billion, and thus the annual growth rate reached 16 percent (Chart 20). The moratorium continued to support credit dynamics; however, its impact will gradually decline in the coming months due to the narrower scope of the prolongation starting from November. Disbursement of new household loans amounted to HUF 221 billion during the month, which 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. In addition to the new measures aimed at first-time homebuyers, available from 2021, the increasing loan amounts resulting from the rising house prices were also key to the disbursement of housing loans in the amount of HUF 108 billion in October.

The smoothed interest rate spread of forint corporate loans was 1.56 percentage points in October 2021, representing a decrease of 0.14 percentage point compared to the previous month (Chart 21). The average smoothed interest rate spread on variable rate housing loans calculated on the basis of the annual percentage rate (APR) also decreased during the month and amounted to 2.74 percentage points. The spread on products with

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

interest rate fixation periods longer than 1 year, up to 5 years and more than 5 years declined moderately during the month. After a decline of 0.19 percentage point, the average spread on housing loans with interest rate fixation periods longer than one year and up to 5 years reached 2.26 percentage points in October, while the spread on products with interest rate fixation periods of more than 5 years amounted to 1.29 percentage point at the end of the period under review after a fall of 0.19 percentage point.