MACROECONOMIC AND

FINANCIAL MARKET DEVELOPMENTS

BACKGROUND MATERIAL

TO THE ABRIDGED MINUTES OF THE

MONETARY COUNCIL MEETING

OF 22 OCTOBER 2019

October

2019

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The background material 'Macroeconomic and financial market developments' is based on information available until 17 October 2019.

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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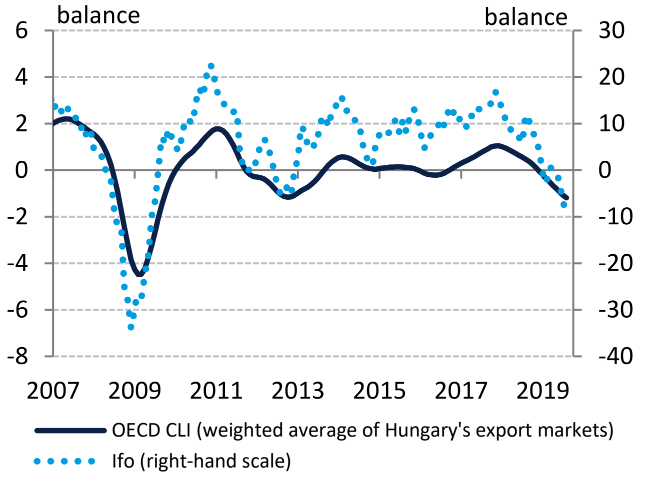
1. Macroeconomic developments

1.1. Global macroeconomic environment

In the second quarter of 2019, both GDP growth in the United States and economic growth in the euro area slowed down quarter on quarter. Growth prospects of the euro area are dominated by downside risks. Growth of the CEE region still substantially exceeds the growth rate of the euro area.

Chart 1: Business climate indices in Hungary's export markets



Source: OECD, Ifo

In the second quarter of 2019, the US economy rose by 2.3 percent on an annual basis. Growth of the US economy may gradually decelerate in the coming period in parallel with the run-out of the growth supporting measures. **The concerns over the trade tensions between the USA and China play an increasingly prominent role in the fears related to the deceleration of the economy.**

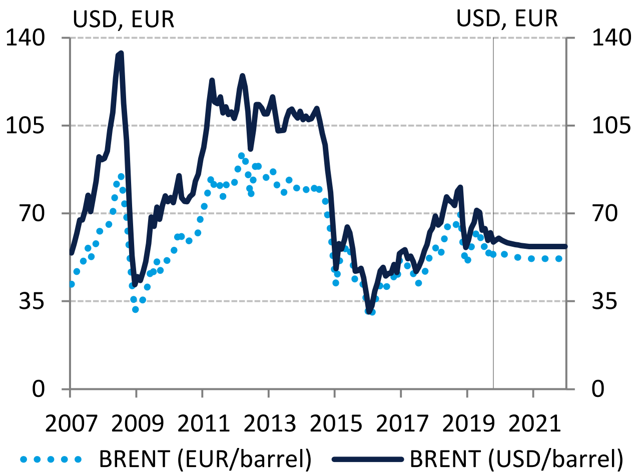
In line with the weakening and increasingly uncertain external activity, in the second quarter of 2019 economic growth decelerated further across Europe. Economic growth of the euro area calculated on year-on-year and **quarter-on-quarter basis rose** by 1.2 **and 0.2 percent,** respectively. **The economic performance of Germany,** Hungary's key trading partner, **declined by 0.1 percent on a quarterly basis. Expectations regarding the German economy's performance this year declined further.** In addition, forward looking purchasing manager indices for the manufacturing industry also suggest continued unfavourable prospects. The Ifo index, capturing the outlooks of the German economy, declined further (Chart 1). **The short-term impact of the German industrial trends on Hungary's prospects is qualified by the fact that in the past months Hungarian vehicle manufacture has continued to outperform that of Germany.**

As in the previous quarters, the Central and Eastern European region proved to be the growth centre of the European Union also in the second quarter of 2019. According to the seasonally adjusted data, Poland, Romania, Slovakia and the Czech Republic recorded GDP growth rates of 4.2 percent, 4.6 percent, 2.6 percent and 2.7 percent, respectively. Examining the region as a whole, growth is mainly driven by domestic demand, while under weakening external activity net exports decelerate growth in several countries.

Growth prospects of the euro area continue to be dominated by downside risks. Economic growth may be curbed by the increase in trade tensions, the deteriorating industrial production observed in the past period, the challenges surrounding the automotive industry, the vulnerability of Italy stemming from the high government debt, the indirect effects of the deceleration of the Chinese economy and the uncertainty resulting from the fragile financial environment on the emerging markets. In addition, the uncertainty surrounding the exit of the United Kingdom from the EU continues to represent material risk and the “fallout” of the United Kingdom from the EU (hard Brexit) remains a realistic scenario.

Underlying inflation measured in the euro area – falling short of the economists’ expectations – **declined further.** Accordingly, inflation stood at 0.8 percent and core inflation at 1.0 percent.

Chart 2: World market prices of Brent crude oil



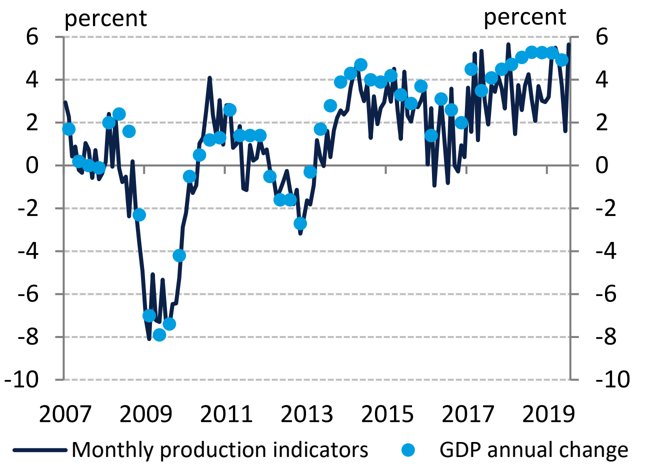
Source: Bloomberg

In the past period, the world market price of crude oil gradually declined to USD 58 from USD 68, recorded in mid-September (Chart 2). The developments in prices were dominated by the recovery of the production lost as a result of the attack on the Saudi oil refinery, and thus at present Saudi Aramco operates with full capacity, which stopped further rise in oil prices. The easing of the Middle East conflict once again diverted the attention to the trade tensions between the USA and China. Decrease in oil prices was supported by the rise in US reserves, which strengthened concerns related to oversupply on the oil market. World market prices of industrial commodities moderately increased, while the price of unprocessed food slightly declined in September.

1.2. Domestic real economy developments

According to the HCSO's data, in the second quarter of 2019, Hungary's gross domestic product rose by 4.9 percent year on year. Growth was still supported primarily by buoyant domestic demand. In the period of June to August 2019, seasonally adjusted unemployment rate remained at 3.4 percent. In the second quarter of 2019, based on the number of vacancies, corporate labour demand continued to decline in a wide range of the sectors.

Chart 3: Monthly production indicators and GDP growth



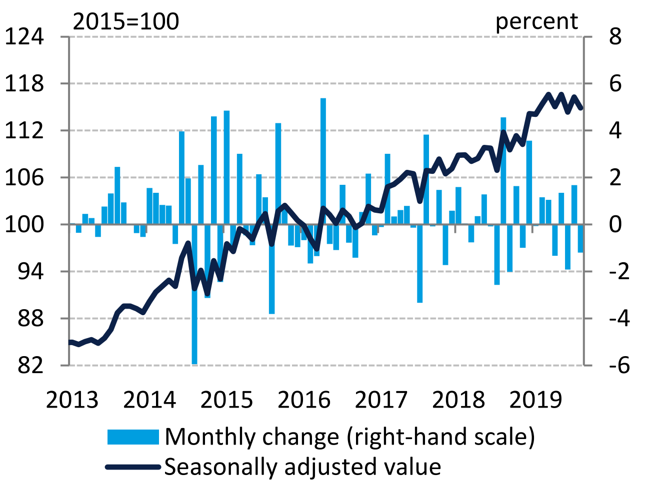
Note: Weighted average of monthly production indicators (industrial output, construction output and retail sales). The weights are derived from regression explaining GDP growth.
Source: MNB calculation based on HCSO data

1.2.1 Economic growth

According to HCSO's data release, in the second quarter of 2019, Hungary's gross domestic product rose by 4.9 percent year on year. Based on the seasonally and working day adjusted data, Hungary's GDP **rose by 1.1 percent quarter on quarter.** Hungary is ranked second, behind Ireland, in the EU member states' growth ranking. From the output side, most of the national economy branches contributed to the growth, and market services, together with industry and construction, supported GDP growth to the largest degree (Charts 3 and 4). Despite the ailment of German industrial production, the Hungarian automotive industry substantially rose in the second quarter of the year, and thus industry made positive contribution to growth. From the expenditure side, domestic demand factors – consumption and investment – continued to increase to a large degree and significantly supported economic growth, while net exports made negative contribution to GDP growth.

In August 2019, **industrial output was up by 0.3 percent** year on year, while production decreased by 1.2 percent compared to the previous month (Chart 4). **The index adjusted for working days exceeded that of last year by 2.7 percent**; the difference is attributable to the working days being fewer by one compared to last year. The output of automotive industry, representing a large weight, rose by 2 percent year on year. In the manufacture of computer, electronics and optical products output rose by 5.9 percent, while the food industry registered a decline.

Chart 4: Development in industrial production

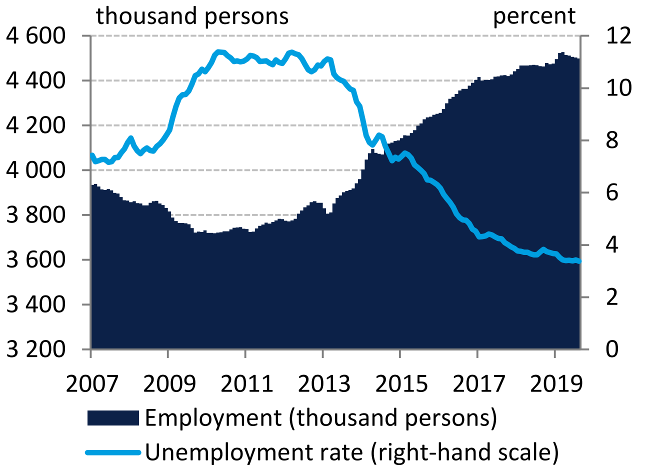


Source: MNB calculation based on HCSO data

Based on preliminary data, **expressed in euro terms, the value of exports and imports was up by 2.6 percent and 1.4 percent,** respectively, in an annual comparison in August 2019, and thus trade surplus rose by EUR 99 million. Despite the ailment of German industrial production, export sales of the Hungarian automotive industry rose by 13.7 percent in August. In July 2019, terms of trade improved in an annual comparison, which may be attributable to the relative change in the price of mineral fuels, machinery and transport equipment.

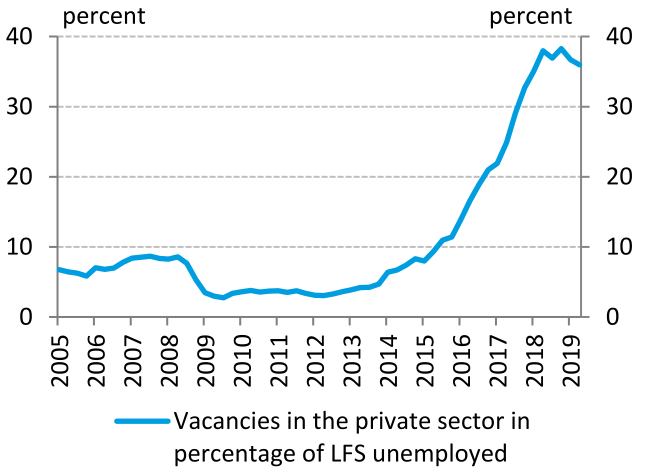
In August 2019, the volume of construction output was up by 5.9 percent year on year. The growth in the construction of buildings was attributable to the construction of residential, cultural and industrial buildings. **The volume of new contracts rose by 3.2 percent year on year,** while the

Chart 5: Number of persons employed and the unemployment rate



Source: HCSO

Chart 6: Development of labour market tightness indicator



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

month-end volume of construction companies' contract portfolio fell short of the value registered a year ago by 12.1 percent.

In August, **retail sales volume, based on the data adjusted for the calendar effect**, **was up by 6.0 percent year on year.** The rise in the total retail sales volume was primarily attributable to the continued growth in the turnover of non-food products (motor vehicles and vehicles parts, industrial goods, mail order shops), while the increase in fuel sales somewhat decelerated compared to the previous month. In addition, the turnover of food stores and groceries, representing a considerable weight, continued to rise year on year, albeit to a lesser degree than in July.

1.2.2. Employment

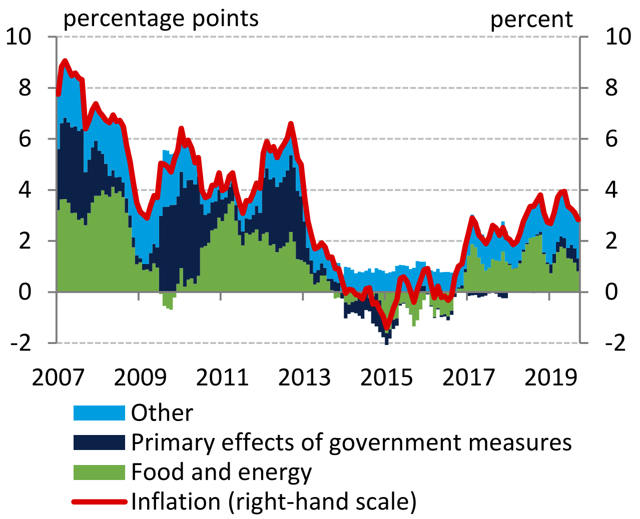
According to the (seasonally adjusted) data of the Labour Force Survey, in the period of June to August 2019, both the labour force participation rate and the number of people in employment continued to decrease moderately. The number of people in public employment remained essentially constant, while the number of people employed abroad was 118,000. **Seasonally adjusted unemployment rate remained at 3.4 percent** (Chart 5).

In the second quarter of 2019, based on the number of vacancies, **corporate labour demand continued to decline in a wide range of the sectors.** The labour market **tightness indicator**, calculated from the ratio of job vacancies and unemployed persons, slackened – similarly to the previous quarter – but **remained at a high level** (Chart 6).

1.3. Inflation and wages

In September 2019, inflation stood at 2.8 percent, core inflation at 3.9 percent and core inflation excluding indirect taxes at 3.4 percent. Of the underlying inflation indicators capturing the more permanent trends, the inflation of demand sensitive products rose, while that of sticky price products and services remained unchanged compared to the previous month. In July 2019, gross average wage in the private sector rose by 11.8 percent year on year. The wage dynamics, still exceeding the 8 percent rise in the minimum wage and the guaranteed wage minimum, may primarily be attributable to the tight labour market conditions determining the underlying wage setting trend.

Chart 7: Decomposition of inflation



Source: MNB calculation based on HCSO data

1.3.1. Wage setting

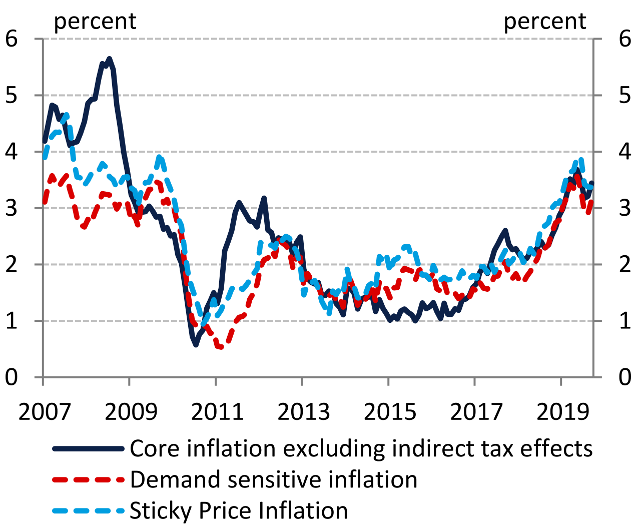
In July 2019, gross average wage in the private sector rose by 11.8 percent year on year. The increase in the regular average wage on a monthly basis slightly exceeded the level observed in previous years. Bonus payments in July were slightly higher than in the previous years. The raising of regular wages and the bonus trends may have been partly shaped by the reduction of the social contribution tax rate by 2 percentage points on 1 July. Within the private sector, similarly to the previous months, wage dynamics in manufacturing substantially exceeded the wage growth of the market services sector. The wage dynamics, exceeding the 8 percent rise in the minimum wage and the guaranteed wage minimum, may still primarily be attributable to the tight labour market conditions determining the underlying wage setting trend.

1.3.2. Inflation developments

In September 2019, year-on-year inflation was 2.8 percent, while core inflation and core inflation excluding indirect taxes stood at 3.9 and 3.4 percent, respectively (Chart 7). Inflation fell by 0.3 percentage point, while core inflation and core inflation excluding indirect taxes rose by 0.2 percentage point compared to the previous month. The fall in inflation was primarily caused by the decline in the price index of unprocessed food and fuels. **The rise in core inflation is primarily attributable to the price index of market services, where the higher price increase was caused by the price index of mobile phones and the internet.**

Of the **other underlying inflation indicators capturing the more permanent trends**, the inflation of demand sensitive products rose, while that of sticky price products and services remained unchanged compared to the previous month (Chart 8). In August 2019, agricultural producer prices rose by 4.2 percent in annual terms, while the domestic sales prices in sectors of consumer goods increased by 5.3 percent.

Chart 8: Measures of underlying inflation indicators

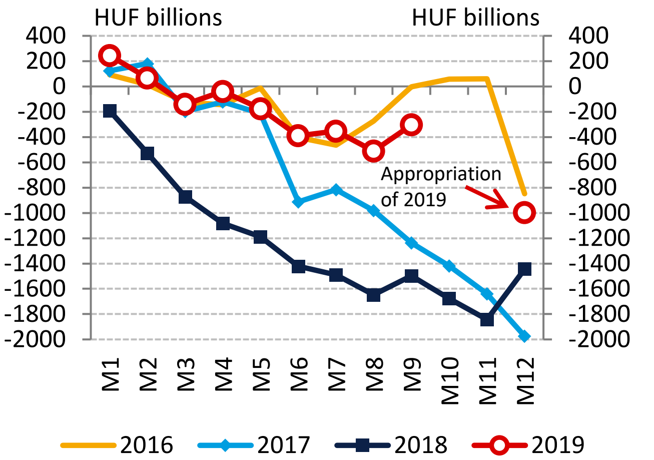


Source: MNB calculation based on HCSO data

1.4. Fiscal developments

In September 2019, the central sub-sector of the general government closed with a surplus of HUF 207 billion, and thus the deficit accumulated in the first three quarters fell to HUF 304 billion, which substantially falls short of the cash-based deficit registered in the first nine months of the previous two years.

Chart 9: Intra-year cumulative cash balance of the central government budget



Source: Budget Act of 2019, Hungarian State Treasury

In September 2019, **the central sub-sector of the general government** closed with a surplus of HUF 207 billion, and thus the deficit of the first three quarters fell to HUF 304 billion, which substantially falls short of the cash deficit registered in the first nine months of the previous two years (Chart 9).

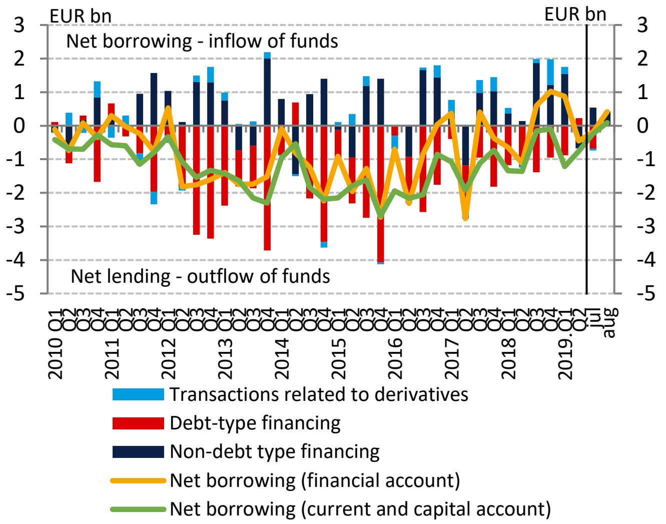
In September, the **revenues of the central sub-sector** significantly rose year on year, which was mainly attributable to the revenues related to EU programmes. Tax and contribution revenues exceeded those realised last September by more than HUF 40 billion, primarily due to the dynamic growth in labour tax revenues. At the same time, the slowdown of the growth rate of VAT revenues continued in the previous month as well.

The expenditures of the central sub-sector were up by HUF 300 billion compared to those registered in the ninth month of the previous year. The largest difference was recorded in the expenditures of the appropriations of central budgetary chapters.

1.5. External balance developments

In August, net borrowing of the economy amounted to EUR 91 million, while the current account deficit was EUR 316 million. According to the financial account data, foreign direct investments continued to rise, while net external debt of the economy did not change materially.

Chart 10: Structure of net lending (unadjusted transactions)



Note: Positive values indicate net borrowing (inflow of funds), while negative values indicate net lending (outflow of funds).
Source: MNB

In August, net borrowing of the economy amounted to EUR 91 million, while the current account deficit was EUR 316 million. The shortfall compared to the previous month is attributable to the decline in trade surplus. The income balance deficit did not change significantly in August, while the transfer balance surplus moderately declined (Chart 10).

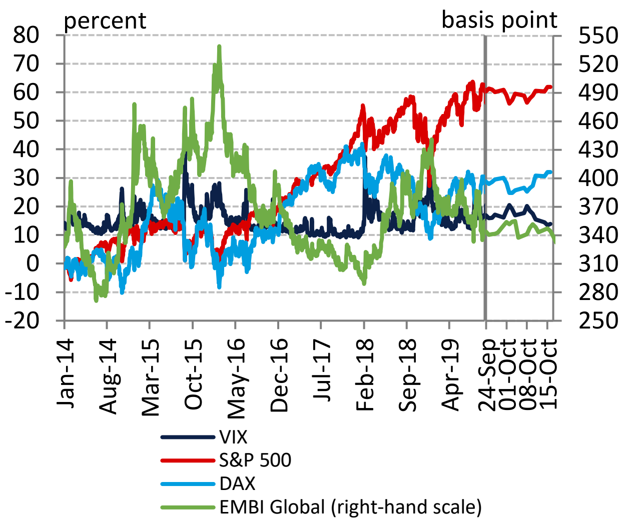
According to the financial account data, foreign direct investments continued to rise, while net external debt of the economy did not change materially. Net borrowing, calculated based on the financial account, amounted to roughly EUR 400 million, which was mostly the result of FDI inflows. In parallel with this, the balance of debt liabilities did not change materially due to transactions: the debt inflow of the private sector was offset by the declining net external debt of the general government.

2. Financial markets

2.1. International financial markets

Since the last interest rate decision risk appetite increased, which was mostly attributable to the positive developments related to the trade war and to the continuation of the Brexit talks. In the period under review, neither ECB, nor Fed held any rate-setting meeting. Looking ahead, the market expects the two central banks to ease the monetary conditions. A moderate rise was observed both on the developed and emerging equity markets, while the emerging bond markets were characterised by decreasing yields in the past month. The damages caused by the drone attacks in mid-September were fully eliminated in Saudi Arabia, and thus, as a result of the decreasing concerns about supplies, oil prices typically also declined.

Chart 11: Developed market equity indices, the VIX index (left-hand scale) and the EMBI Global Index (right-hand scale)



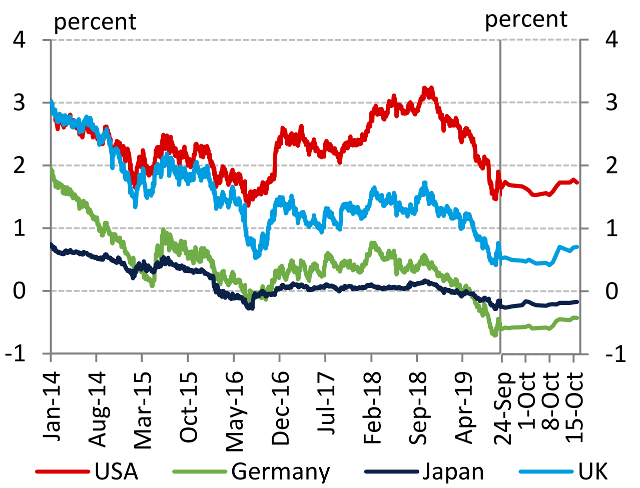
Source: Bloomberg

Financial market sentiment varied in the past period (Chart 11). Changes in the risk appetite were shaped by the positive developments related to the trade war and the decline of the probability of a no-deal Brexit, as well as by the strengthening of certain geopolitical (Syrian, Middle East) tensions.

The VIX index, the key measure of equity market risks, is around 14 percent, similarly to the start of the period, while the emerging bond market EMBI Global spread fell by roughly 10 basis points to 330 basis points. **In the past one month the US and Japanese stock exchange indices rose by 0.5-1 percent, the European ones by 1-3 percent, while the composite MSCI, measuring the performance of the emerging market, was up by 1 percent.** At the same time, the British stock exchange index fell moderately, by 1 percent. In parallel with the strengthening of the risk appetite, gold price dropped by 4 percent.

Developed market bond yields varied since the last interest rate decision (Chart 12). The US long-term yield fell by 7 basis points to 1.72 percent, while the German 10-year yield rose by almost 10 basis points to -0.42 percent. Owing to the increasing risk appetite, emerging market yields mostly declined. The largest decline was observed in the Brazilian and Russian ten-year yield, but India and Central and Eastern Europe were also characterised by a yield decrease. At the same time, long-term yield in China moderately increased.

Chart 12: Yields on developed market long-term bonds

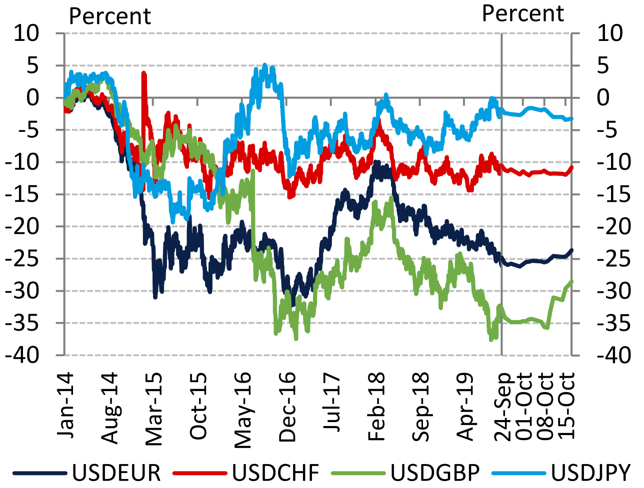


Source: Bloomberg

Based on the market pricing, the major central banks may continue to ease their monetary conditions. Fed may cut the interest rate by 25 basis points as early as at the October meeting. Based on the forward rate quotes, additional cut in the European Central Bank's deposit rate may be expected over a horizon of one year.

The European Union and Great Britain managed to agree on the Brexit process, but it is questionable whether the British Parliament will also approve it. At the same time, if the British Parliament rejects the proposal, the chances of

Chart 13: Developed market FX exchange rates



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

Source: Reuters

Boris Johnson being able to negotiate another agreement by the end of October decrease to the minimum. In this case, according to the law, the British Prime Minister will have to apply to the European Union for yet another postponement.

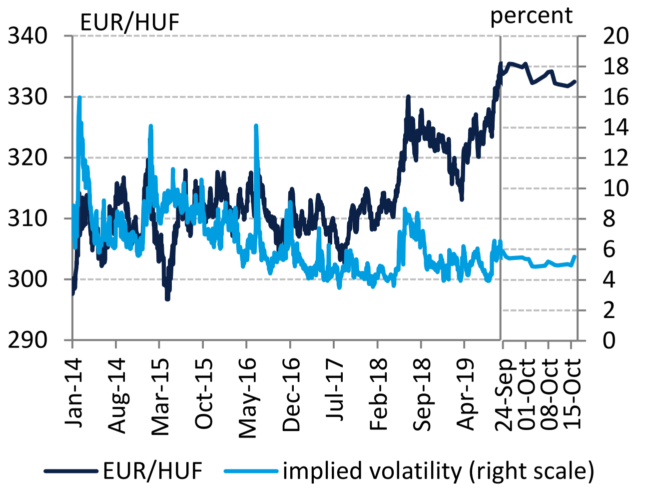
Due to the declining chance of a no-deal Brexit, the British pound considerably appreciated both against the euro and the dollar. The pound appreciated against both currencies by more than two percent, while the pound market was characterised by major volatility. The EUR/USD exchange rate fluctuated in a narrow band during the period under review, and at present it stands roughly at the same level as a month ago (Chart 13). At the same time, in the favourable sentiment the Swiss franc and the Japanese yen depreciated against the dollar by 1 and 2 percent, respectively, during the period under review.

During the last one-month, oil prices decreased, and thus the price of Brent and WTI dropped by 8 percent to USD 59 and by 9 percent to USD 53, respectively. The diminishing of the supply concerns pointed to a decrease, since the damages caused by the drone attack on the oil refinery in Saudi Arabia were fully eliminated. Thus, Saudi Aramco is once again able to produce 10 million barrels of oil daily, just like before the attack.

2.2. Developments in domestic money market indicators

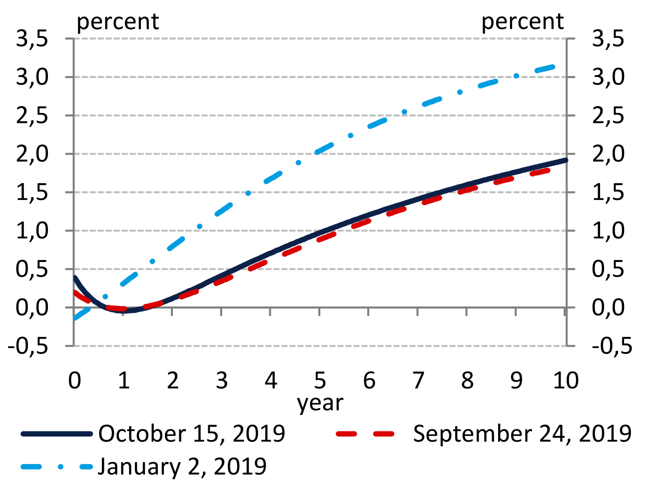
During the period under review, the forint slightly appreciated against the euro. The 3-month BUBOR remained unchanged at 0.21 percent. The short section of the government securities yield curve shifted slightly downwards, while the middle and long sections rose in line with the trends observed on the developed markets, and thus the steepness of the government yield curve increased. At the same time, the auction of short- and medium-term government securities attracted strong demand.

Chart 14: EUR/HUF exchange rate and the implied volatility of exchange rate expectations



Source: Bloomberg

Chart 15: Shifts in the spot government yield curve



Source: MNB, Reuters

Since the interest rate decision in September, the forint exchange rate against the euro appreciated by 0.4 percent from 333.5 to 332.5 (Chart 14). The Polish zloty appreciated by 2 percent, while other currencies of the region (the Czech koruna and the Romanian leu) did not change materially during the period under review.

The 3-month BUBOR did not change since the previous interest rate decision, and thus it stood at 21 basis points at the end of the period. **The middle and longer sections of the government yield curve slightly shifted upward** (Chart 15). The middle section of the yield curve was characterised by a rise of 2-8 basis points, while the long section registered a rise of 7-8 basis points, and thus the government yield curve became slightly steeper during the period under review.

Short-term forint government bond auctions were characterised by medium and strong demand, and thus average yields remained record low. Demand for medium-term securities was stronger, while it was weaker for those with the longest term, but long-term yields typically decreased. At the auctions for 3- and 12-month Treasury bills, under medium and strong demand, the Government Debt Management Agency issued the announced volume at each time. The average auction yields of the 3-month auction fell below 0 percent, and average yield also declined at the 12-month Treasury bill auctions. Demand at the longer-term government securities auctions varied: at the auctions for the 5- and 10-year securities the Government securities accepted higher volumes than previously announced, and the average yields of the 5- and 10-year securities fell by 10-20 basis points, to 0.96 and 1.87 percent, respectively. One of the auctions for the 15-year bonds was cancelled, while yields at the other auction rose by more than 40 basis points compared to the end of August. The Hungarian 5-year CDS spread fell by 1 basis point during the period under review, and at present it stands at 78 basis points.

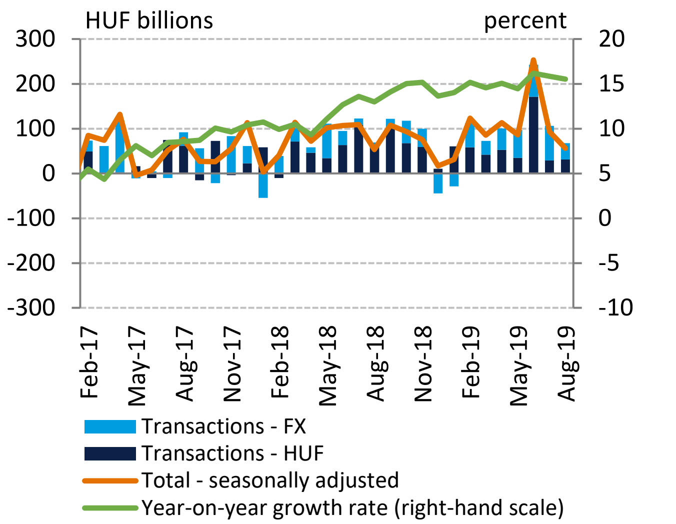
Non-residents' forint government securities holdings declined. Non-residents' forint government securities holdings declined by HUF 73 billion to HUF 4,311 billion. Their share within the total portfolio declined by 0.7

percentage point, and thus at the end of the period it was close to 24.6 percent of the market holding.

3. Trends in lending

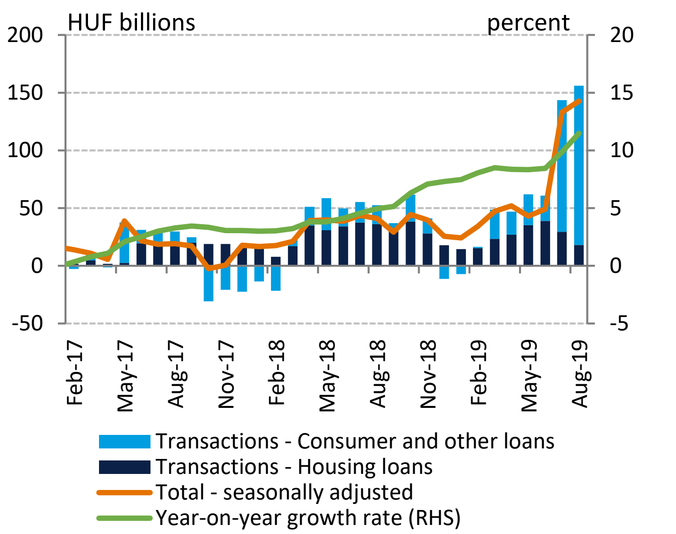
In August, the outstanding corporate loans of credit institutions rose by HUF 67 billion due to transactions. In August, the outstanding loans of the credit institutions to households rose by HUF 156 billion – after seasonal adjustment, by HUF 143 billion – due to transactions, which outstripped even the record high growth rate registered in July, and thus the annual growth rate rose to 11.5 percent.

Chart 16: Net borrowing by non-financial corporations



Source: MNB

Chart 17: Net borrowing by households

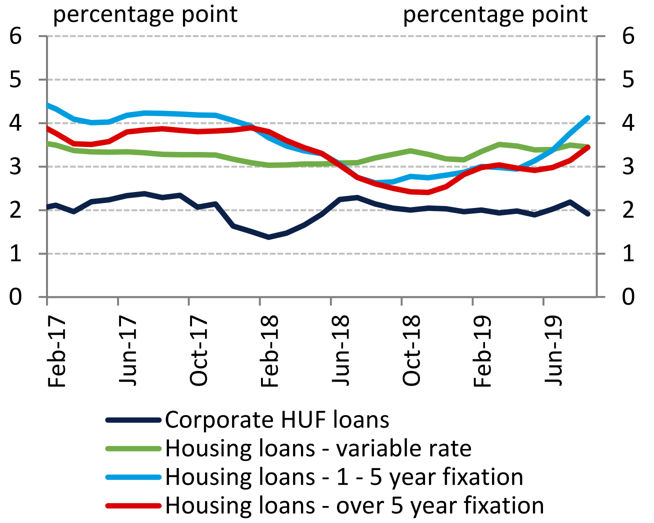


Source: MNB

In August, the outstanding corporate loans of credit institutions rose by HUF 67 billion due to transactions (Chart 16). In a breakdown by currency, forint loans and foreign currency loans increased by HUF 31 billion and HUF 36 billion, respectively. The growth registered in the past 12 months due to transactions continues to exceed HUF 1,000 billion. Thus, the annual growth rate of the outstanding corporate loans remained 15.5 percent. Excluding money market transactions, the volume of new loans amounted to roughly HUF 187 billion in August. **The growth rests upon a broad base in a breakdown of banks and industries as well.**

In August, the outstanding loans of the credit institutions to households rose by HUF 156 billion – after seasonal adjustment, by HUF 143 billion – **due to transactions**, which outstripped even the record high growth rate registered in July, and thus the annual growth rate rose to 11.5 percent (Chart 17). Buoyant demand for prenatal baby support loans made major contribution to the rise: in August disbursements under this product were made in the total amount of HUF 114 billion, which is more than twice as high as the amount disbursed in July. Outstanding housing loans and personal loans rose more moderately compared to the previous months (by HUF 18 billion and HUF 15 billion, respectively), under continuing decrease in mortgage equity withdrawals.

Chart 18: 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

The **smoothed interest rate spread of forint corporate loans** was 1.92 percent in August 2019, representing a decrease of 26 percentage points compared to the previous month (Chart 18). 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 3.45 percentage points in August. The decrease in the APR level of the fixed-rate housing loans fell short of the decline in the longer term funding costs (relevant IRS), and thus the average spread on loans with an interest rate fixation longer than one year and up to 5 years reached 4.12 percentage points in August, while the spread on products with interest rate fixation for more than 5 years was 3.45 percentage points.