MACROECONOMIC AND

FINANCIAL MARKET DEVELOPMENTS

BACKGROUND MATERIAL

TO THE ABRIDGED MINUTES OF THE

MONETARY COUNCIL MEETING

OF 21 AUGUST 2018

AUGUST

2018

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The background material 'Macroeconomic and financial market developments' is based on information available until 16 August 2018.

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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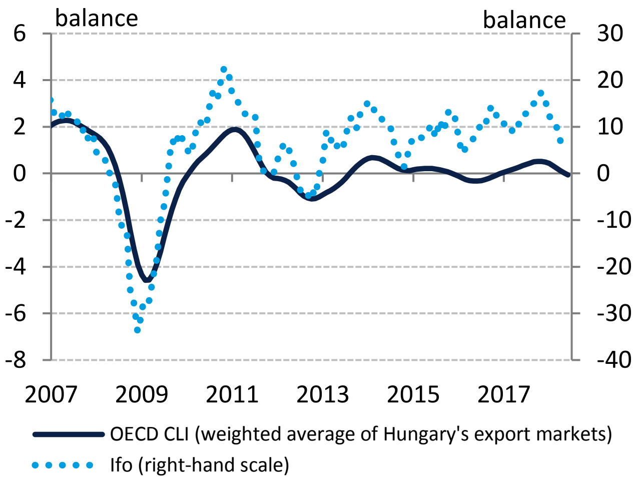
1. Macroeconomic developments

1.1. Global macroeconomic environment

In the second quarter of 2018, based on the preliminary data, both the economic growth in the euro area and the GDP growth of the United States continued, but an increase in the regional differences was observed. According to the latest international forecasts, on the whole, the growth prospects of the EU and the euro area deteriorated in the first half of the year.

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



Source: OECD, Ifo

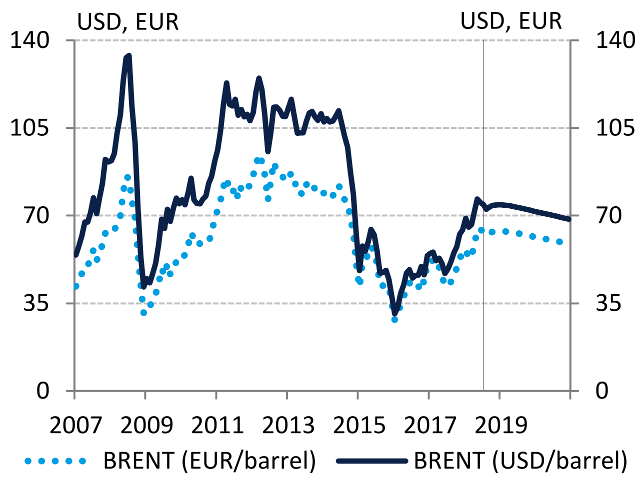
Based on the preliminary data, growth in the global economy, and particularly in the euro area, continued in the second quarter of 2018. The US economy rose at the fastest rate observed since 2015, by 2.8 percent in annual terms and by 1 percent quarter on quarter, primarily supported by the upturn in domestic consumption. However, primarily due to the changes in the fiscal policy, the **indebtedness and vulnerability of the US economy** may once again come into the limelight.

Economic growth in the euro area continued in the second quarter, albeit at a slower rate than observed in the previous quarters. **However, the 2.1 percent annual and 0.3 percent quarter-on-quarter growth fell short of the economists' expectations.** In addition, **the underlying business climate indices of the EU and other countries typically declined** in the quarter under review (Chart 1). As a result of the incoming GDP data and the deteriorating business climate attributable to the risk of a trade war, several international organisations (European Commission, IMF) reduced their forecast related to the growth in Europe. The growth in Europe is primarily attributable to the upturn in the domestic demand items; however, looking ahead, the external trade developments may be a key factor.

Based on the available production data, the differences in the growth of the regions within the EU may have persisted also in the second quarter of 2018. The annual change in the retail sales volume in the CEE region substantially exceeded the turnover growth measured in the euro area. As regards the industrial and construction output, the data available for the CEE region outstrip the growth measured in Germany. The economic growth rate in Central and Eastern Europe may steadily remain higher compared to the developed countries; at the same time, **downside risks** (e.g. as a result of the trade war) **may be identified in the CEE region as well.**

The growth of the EU economy is still surrounded by major risks. In the recent period, there was a strengthening in the risks pointing to a more moderate growth. The already introduced and the anticipated **import tariffs** – due to the significant weight of the United States – **may curb world**

Chart 2: World market prices of Brent crude oil



Source: Bloomberg

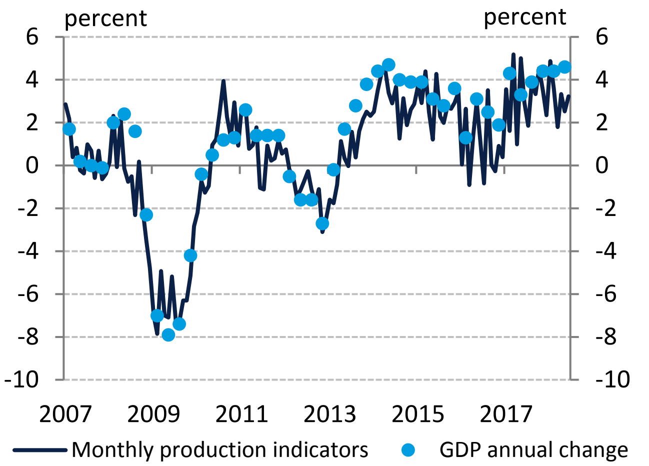
economic growth, including that of Europe. The exit of the United Kingdom from the EU and the increase in the uncertainty arising from the exit talks represent additional negative risk for the European Union's medium-term growth. On the whole, the risks threatening the global economy strengthened to a negative direction.

Global inflation rose in the past month; however, underlying inflation in the euro area continues to develop moderately. In July – based on the preliminary data – euro area inflation rose, primarily reflecting – similarly to the previous month – the growth in fuel prices. The world market price of crude oil was USD 74 on average in the past month (Chart 2). The volatility of the oil prices – observed primarily in the first half of July – is attributable to several factors, of which the most important ones are the geopolitical tensions in the Middle East; the crisis in Venezuela, the growth in the OPEC oil production from July; the larger than expected decline in the US stocks of crude oil; as well as the US sanctions imposed on Iran and its trade war pursued with China. World market prices of industrial commodities and unprocessed food both declined in July.

1.2. Domestic real economy developments

According to the HCSO's detailed data release, in 2018 Q2 Hungary's GDP grew by 4.6 percent year on year. The buoyant economic growth is also evidenced by the available monthly production indicators. In 2018 Q2 the unemployment rate declined to 3.6 percent. The tightness indicators calculated from the ratio of vacancies and unemployed persons still indicate historically tight labour market environment.

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

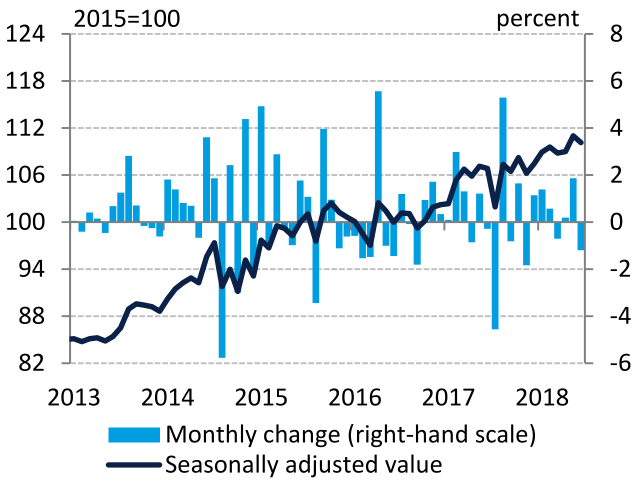
1.2.1 Economic growth

According to the data release by the HCSO, in the second quarter of 2018, Hungary's gross domestic product grew at a rate of 4.6 percent year on year (Chart 3). Based on the seasonally and working-day adjusted data, Hungary's GDP rose by 0.9 percent quarter on quarter. On the output side, market services were the key drivers of growth. No accurate information is yet available on the structure of the economic growth's expenditure side, but according to our expectations, investments and household consumption may have continued to be the primary contributors to economic growth**.**

Vigorous growth in GDP continued in the second quarter of 2018 as well, also evidenced by the available monthly production indicators. In June 2018**, industrial output was up 4.2 percent** year on year, while production **declined by 1.2 percent compared to the previous month** (Chart 4). In June, the working-day adjusted index exceeded that of last year by 3.1 percent. The **output of most of the manufacturing subsectors rose** year on year. The output of vehicle manufacturing, representing a considerable weight, rose moderately on the whole, as a combined result of the substantial growth in the manufacturing of vehicle parts and the significant decline in the production of road vehicles. The buoyant growth in chemical industry continued, mainly supported by the rise in rubber and plastic manufacturing. In addition, metal and food industry production also rose in June. **The rise in industrial sales was supported primarily by the increase in domestic sales.** Compared to the beginning of the year, forward-looking indicators typically developed less favourably, primarily due to the strengthening in the uncertainties related to trade protectionism.

Expressed in euro terms, the value of exports and imports was up by 8.9 and by 8.4 percent, respectively, year on year in June 2018, and thus trade surplus increased by EUR 119 million. In May 2018, the terms of trade have slightly deteriorated year on year. The deterioration in the terms of trade was primarily caused by the rise in the relative price of mineral fuels and processed goods, which was offset by the improvement in the relative price of food, machinery and transport equipment only partially.
In June 2018 the volume of construction output was up by 28.2 percent year on year, while output increased by 7.2

Chart 4: Development in industrial production

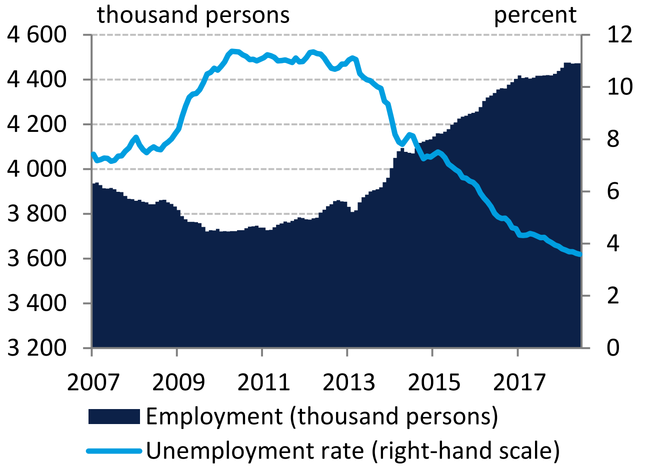


Source: MNB calculation based on HCSO data

percent compared to the previous month. Output increased both in the case of buildings and other structures. In the case of the construction of buildings, the upturn in production was attributable to educational, industrial, commercial and residential buildings. Owing to the government investments (mostly infrastructure developments), construction of other buildings continued to rise significantly. The volume of new contracts stagnated year on year, with positive contribution by the contracts concluded for the construction of other buildings. The volume of new contracts concluded for the construction of structures declined in annual terms. The rise in new contracts concluded for the construction of other buildings is primarily attributable to high-value infrastructure developments. The month-end volume of the construction companies' contract portfolio substantially exceeds that of last year, which primarily reflects the housing market contracts committed until 2019 and the already committed EU funds.

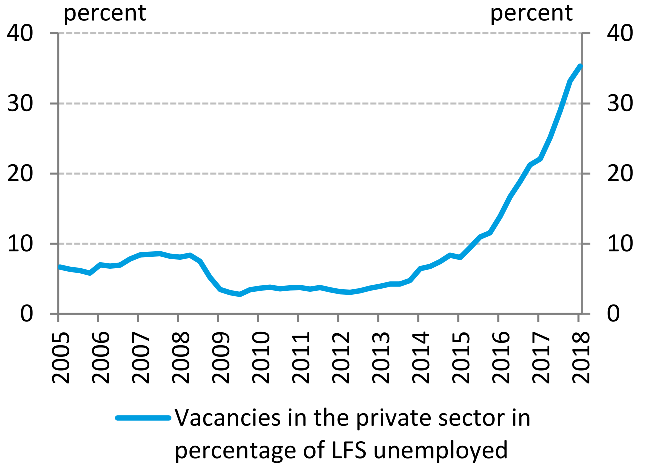
In June, according to the preliminary data, **retail sales volume was up 6.4 percent year on year, based on the seasonally unadjusted data** (the calendar effect had no impact on the sales data). In the second quarter, retail sales volume rose by 6.4 percent also after seasonal adjustment. In the past months turnover increased in a wide range of products. Substantial growth in the turnover of non-food consumer durables continued, while the rise in food sales somewhat fell short of the average of the previous period. The change in the domestic retail turnover is outstanding compared to both the EU and the region; compared to the preliminary Hungarian figures, similar growth rate was registered only in Romania and Lithuania.

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

1.2.2. Employment

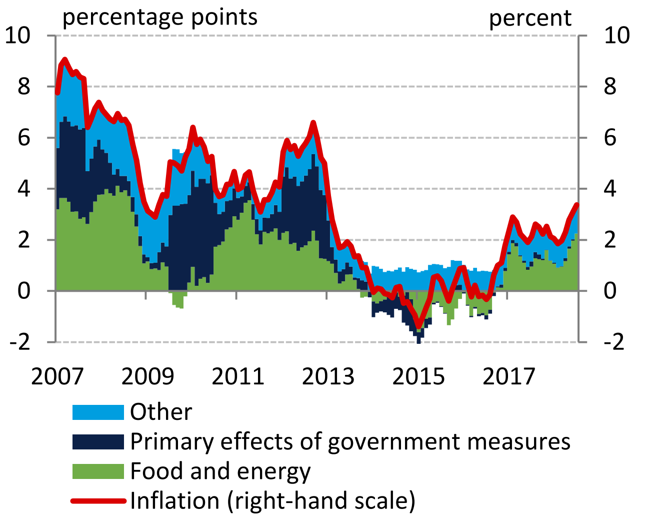
According to the (seasonally adjusted) data of the Labour Force Survey, in the second quarter of 2018 the labour force participation rate moderately increased. Total employment rose, contributed to by the increase in both private and public sector employment. Within the public sector, the decrease in the number of participants in public work programmes continued, while employment other than public work increased at a higher rate than that. The growth in the private sector headcount continued to be mostly attributable to the increase in the number of people employed in construction, while no material change has been observed in the manufacturing and market services sectors. The number of those employed at foreign business sites declined to 107,100. In parallel with this the level of unemployment decreased; **the unemployment rate fell to 3.6 percent** (Chart 5).

In the first quarter of 2018, according to the data released by the HCSO related to vacancies, corporate labour demand grew both in manufacturing and the market services sectors. The **tightness indicator** calculated from the ratio of vacancies and unemployed persons **still indicates historically tight labour market environment** (Chart 6).

1.3. Inflation and wages

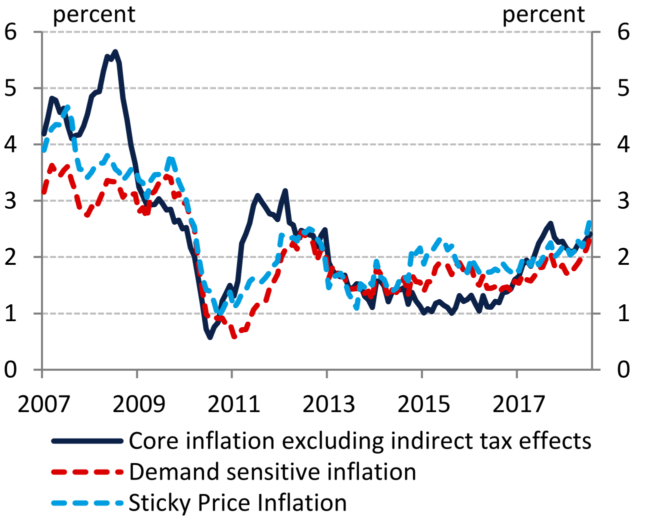
In July 2018, inflation stood at 3.4 percent, core inflation at 2.5 percent and core inflation excluding indirect taxes at 2.4 percent. Underlying inflation indicators rose compared to the previous month. In May 2018, gross average wage in the private sector rose by 10.6 percent year on year. The continued vigorous wage dynamics was supported, in addition to the historically tight labour market environment determining the underlying wage setting trend, by the raising of the minimum wage and guaranteed wage minimum by 8 and 12 percent, respectively, this year.

Chart 7: Decomposition of inflation



Source: MNB calculation based on HCSO data

Chart 8: Measures of underlying inflation indicators



Source: MNB calculation based on HCSO data

1.3.1. Wage setting

In May 2018, gross average wage in the private sector rose by 10.6 percent, while regular average wage **was up 11 percent year on year**. In the private sector, the dynamics of both the gross and regular average wages accelerated relative to the previous month. The monthly dynamics of the regular average wage developed more vigorously than usual in May, while bonus payments in May slightly fell short of those observed last year. **The continued vigorous wage dynamics was supported, in addition to the historically tight labour market environment determining the underlying wage setting trend, by the raising of the minimum wage and guaranteed wage minimum by 8 and 12 percent, respectively, this year.**

1.3.2. Inflation developments

In July 2018, year-on-year inflation was 3.4 percent, while core inflation and core inflation excluding indirect taxes stood at 2.5 and 2.4 percent, respectively (Chart 7). Inflation and core inflation rose by 0.3 and 0.1 percentage point, respectively, relative to the previous month. The increase in inflation was caused by the increase in the price index of fuel and industrial goods.

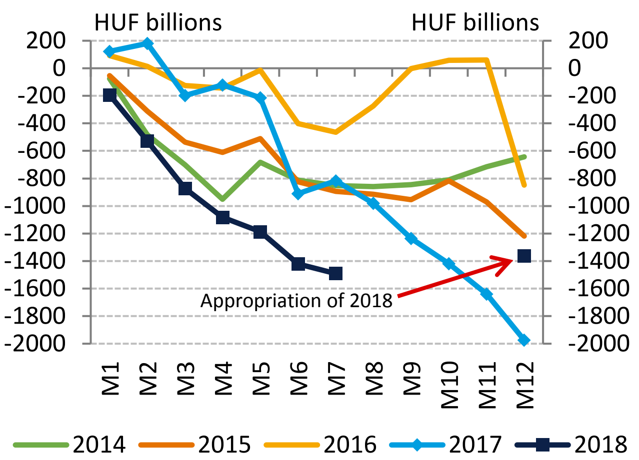
Underlying inflation indicators rose compared to the previous month (Chart 8). In May 2018, agricultural producer prices have not changed in annual terms, while the domestic sales prices of the consumer goods sectors increased by 1.4 percent in June.

According to the July data, both the inflation and the core inflation data was in line with the forecast in the June Inflation Report. According to the projection in the MNB's June Inflation Report, as a result of the rise in oil prices, inflation will slightly exceed 3 percent on a temporary basis. Inflation will reach the 3 percent target sustainably by mid-2019.

1.4. Fiscal developments

In July 2018, the central sub-sector of the general government closed with a deficit of HUF 70 billion, and thus the current year's cumulated balance amounted to HUF -1,491 billion at the end of July, representing a higher deficit than registered in the previous years and also exceeding the appropriation of the 2018 budget.

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



Source: Budget Act of 2018, Hungarian State Treasury

In July 2018, **the central sub-sector of the general government** closed with a deficit of HUF 70 billion, and thus the current year's cumulated balance amounted to HUF -1,491 billion at the end of July, representing a higher deficit than registered in the previous years and also exceeding the estimate in the 2018 budget (Chart 9). The higher value of the cumulated government cash deficit compared to that of last year is mostly attributable to the pre-financing of EU transfers, the higher expenditures of the budgetary organisations and the absence of last year's one-off items (growth tax credit, land sales).

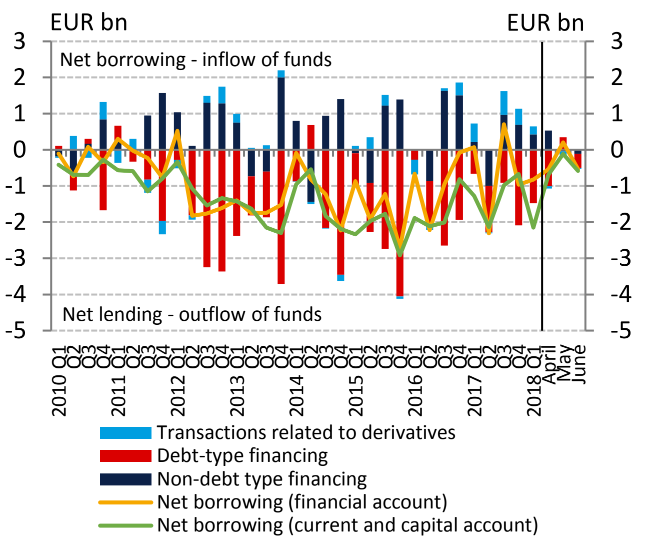
The revenues of the central sub-sector were up by HUF 62 billion year on year. Compared to last July, VAT payments were higher by HUF 44 billion as a result of the increasing revenues generated by the growth in retail sales volume. Wage-related revenues rose by HUF 37 billion in July. Thus, the cumulated growth represents a surplus revenue of almost HUF 300 billion compared to the first seven months of last year, despite the 2.5 percentage point cut of the social contribution tax rate at the beginning of this year.

The **expenditures of the central sub-sector** rose by HUF 226 billion compared to July 2017, which is mostly attributable to the payment of EU transfers exceeding the year-on-year value by almost HUF 150 billion.

1.5. External balance developments

In June, net lending of the economy and the current account both increased. According to the financial account data, there was a substantial decrease in the net external debt of the economy, while foreign direct investments slightly declined.

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 June, net lending of the economy and the current account both increased (Chart 10). Following the minor deficit registered in May, the current account substantially increased and amounted to almost EUR 450 billion. In connection with this – under the moderately decreasing capital account – net lending also rose. The improvement in the external balance indicators is fully attributable to the external trade balance, and particularly to the rise in the goods balance, in line with the strengthening industrial production. The income balance deficit is higher than that observed in previous months due to seasonal reasons, as a result of the upcoming dividend payments in the period under review. In addition, the decrease in the transfer balance also reduced net lending, which was due to the lower absorption of EU transfers.

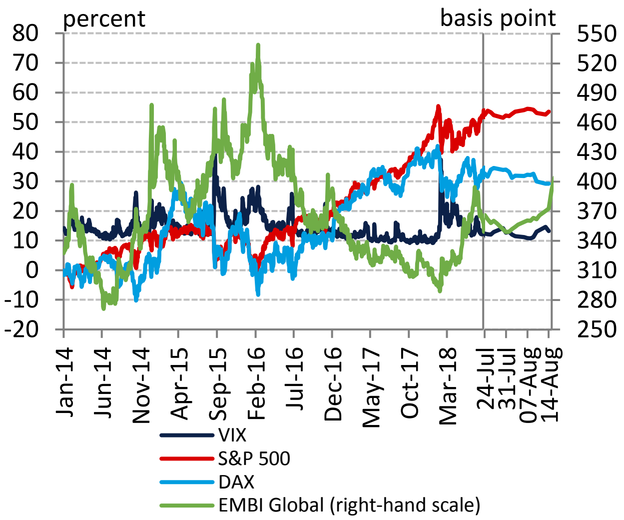
According to the financial account data, there was a substantial decrease in the net external debt of the economy, while foreign direct investments slightly declined. Based on the items of the financial accounts, net lending was around EUR 530 million. During the month, the economy's net FDI stock moderately decreased, which was attributable – in addition to the continued repayment of the intercompany loans – to the dividend payments usual in the period. Based on the monthly transactions, net external debt declined by approximately EUR 400 million. As a result of the decline in external liabilities exceeding the fall in external assets, the net external debt of the **banking sector** decreased by EUR 500 million. The **general government's** external debt remained almost unchanged during the month: a foreign currency bond expiring in June reduced the general government's gross external debt, but it also led to a decline in foreign exchange reserves, and thus it had no impact on the net external debt. No material change occurred in the **corporate sector**'s net external debt.

2. Financial markets

2.1. International financial markets

Global investor sentiment slightly deteriorated since the last interest rate decision, mostly due to the new information related to the trade war and the financial market turbulences observed in certain emerging countries. The VIX index, measuring stock exchange volatility, rose minimally, to 14 percent. While the US stock exchanges rose, the rest of the developed stock exchanges and the majority of the emerging stock market indices declined during the period under review. The almost 30 basis point rise in the EMBI Global bond spread on the emerging market government securities markets reflected the strengthening of the emerging market's risk aversion; however, the shift in the index was determined by the performance of a few countries. In the foreign exchange markets the dollar appreciated against the euro, the British pound and the majority of the emerging currencies. Oil prices decreased during the period under review, and thus the Brent and WTI fell to USD 72 and USD 67, respectively.

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



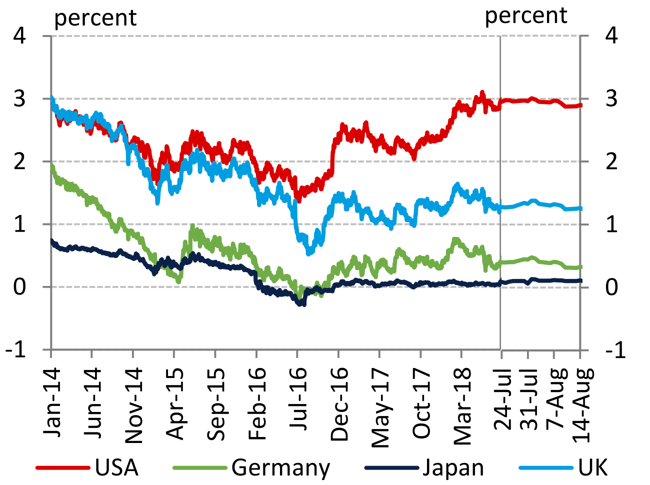
Source: Bloomberg

Investor sentiment slightly deteriorated since the previous interest rate decision. The more risk averse market sentiment was mostly generated by the new information related to the commercial war, as well as by the financial market turbulences observed in some of the emerging counties, particularly in Turkey and Argentine. In the first half of the period under review, the VIX index moderately decreased, while in the second half thereof it rose slightly above the level registered at the previous interest rate decision; at the same time, the MOVE index, measuring the volatility of the US bond market, rose from its historic low by 3 basis points to 50 basis points (Chart 11).

While the US stock exchange indices moderately rose, most of the developed and emerging stock market indices fell during the period under review. US equity indices rose by almost one percent, particularly at the beginning of August, due to the publication of the more favourable than expected corporate earning reports. By contrast, the key European equity indices fell by 1-3 percent, while of the emerging stock exchange indices the Chinese and the Brazilian ones declined by 6 and 1 percent, respectively. On the whole, the developed market MSCI index rose by half percent, while the MSCI index measuring the performance of the emerging market decreased by almost 3.5 percent compared to the start of the period.

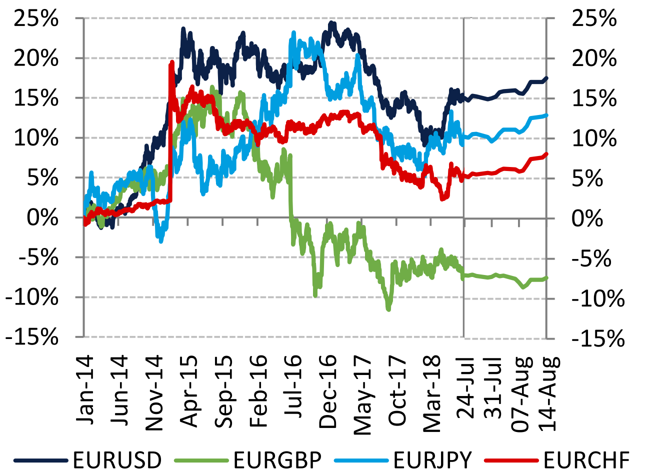
Developed market long-term yields decreased, while most of the emerging ones rose. On the developed markets, following a 6 basis point fall, the US long-term yield was still below 3 percent, while the German yield decreased by 7 basis points, and thus it stands at 0.33 percent. By contrast, the Japanese ten-year yield rose moderately, by 2 basis points, but it is still around 0 percent (Chart 12). Due to the deteriorating sentiment observed in the emerging markets, the EMBI Global rose by almost 30 basis points during the period under review. At the same

Chart 12: Yields on developed market long-term bonds



Source: Bloomberg

Chart 13: Developed market FX exchange rates



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

time, the shift in the index was substantially determined by the 2.5 percent and 1.3 percent rise in the Turkish long-term yield and in the Argentine ten-year yield, respectively. On the whole, emerging markets were characterised by the outflow of capital from bond funds, although a minimal inflow took place in the Central and Eastern European region.

Expectations with regard to an interest rate hike in the USA and in the euro area have not changed significantly. In the case of Fed, according to the market pricing, there is a probability of further 2 interest rate hikes this year, in September and December. The probability of this rose from 66 percent to 73 percent in one month. In the case of ECB, based on the market pricings, the tightening of the interest conditions is expected to commence in November 2019.

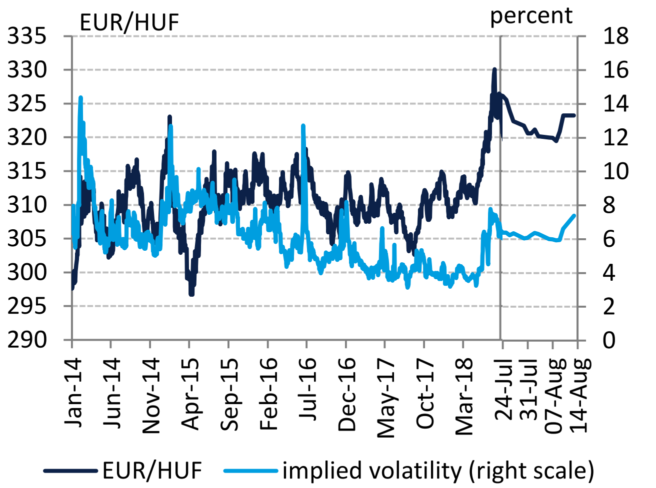
During the last one month, the dollar appreciated against the euro and the British pound by almost 3 percent, while the exchange rate against the Swiss franc and the Japanese yen has not changed substantially (Chart 13). The emerging currencies depreciated against the dollar by roughly 4 percent; the Argentine peso and the Turkish lira performed particularly badly, of which the latter depreciated by 40 percent, followed by an adjustment, finally recording a depreciation of 22 percent. The Turkish authorities took several measures to calm the markets, which may have supported the correction of the lira. The 8 and 6 percent depreciation of the Argentine currency and the Russian rouble, respectively, made them underperforming among the emerging market currencies. The Argentine central bank decided on an additional 500 basis point interest rate hike in August, thereby increasing the base rate to 45 percent, and it also performed additional foreign exchange market intervention. The measures may have contributed to the stabilisation of the peso exchange rate at the end of the period.

Oil prices declined during last month. While the Brent price fell by 1 percent to USD 72, the WTI price decreased to USD 67 after a fall of 3 percent. At the beginning of the period, concerns related to oil supply, and particularly the deepening of the tension between the US and Iran, caused prices to rise; however, a correction took place in the second half of the period and quotes declined.

2.2. Developments in domestic money market indicators

In the first half of the period under review, the forint appreciated, followed by a depreciation as a result of the emerging market turbulences, and thus on the whole it closed the period slightly stronger against the euro compared to the previous interest rate decision. The 3-month BUBOR fell from 24 basis points to 19 basis points. The short section of the government securities yield curve has not changed materially, while on the 5 to 10-year section it shifted upward by 2-10 basis points, and thus the curve became steeper. Non-residents' forint government securities holding moderately rose by the end of the period, and their share remained at around 21 percent.

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

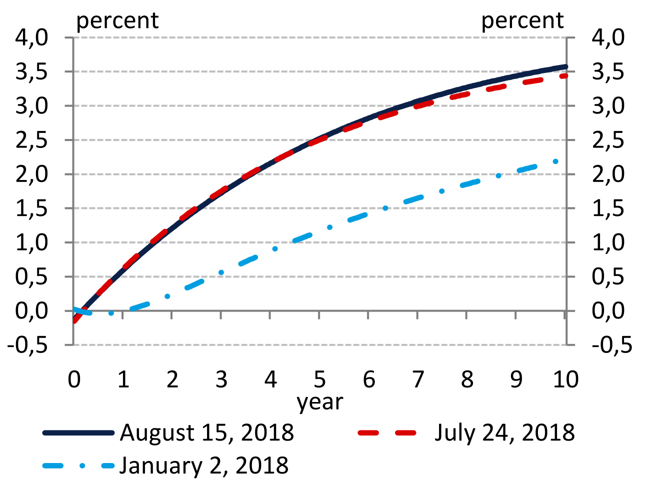


Source: Bloomberg

In the first half of the period under review, the forint appreciated by 2 percent below 320, followed by a depreciation to 323 at the end of the period, and thus on the whole it slightly appreciated since the last interest rate decision. Of the currencies of the region, the Polish zloty moved together with the forint during the period, while the Czech koruna and the Romanian leu showed lesser volatility. On the whole, the Czech koruna and the Polish zloty slightly appreciated, while the exchange rate of the Romanian leu, breaking away from the regional trends, somewhat depreciated against the euro during the period under review. The volatility of the forint exchange rate decreased in most of the period; however, a minor increase was observed at the end of the period. Thus the one-week implied volatility fell slightly below 6 percent, from where it finally rose above 7 percent (Chart 14).

The 3-month BUBOR, relevant for the monetary policy transmission, fell by 5 basis points from 24 to 19 basis points. **The short section of the government yield curve has not changed materially, while the over 5-year section thereof increased by 10-15 basis points**, thereby making the yield curve steeper (Chart 15).

Chart 15: Shifts in the spot government yield curve



Source: MNB, Reuters

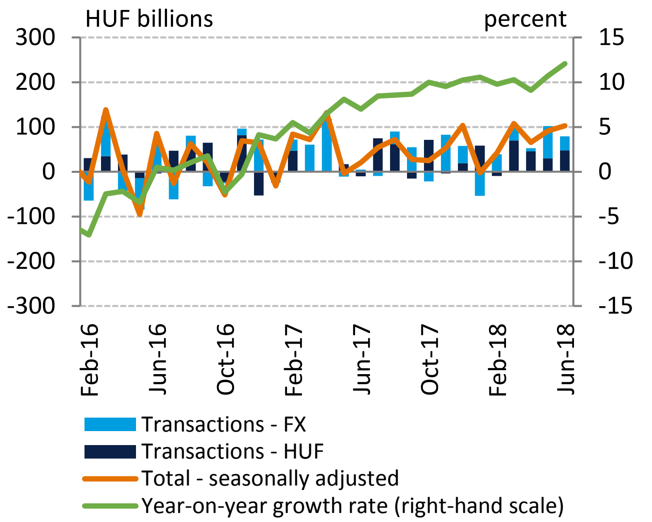
Forint government securities auctions were characterised by mixed demand, and thus in certain cases the Government Debt Management Agency accepted higher than the announced quantity, while in other cases lower than that. In the case of the 3-month auctions, the average auction yield fell at the auction that followed the previous interest rate decision, and remained around 0.1 percent until the end of the period. At the 3-month discount Treasury bill auctions, the Government Debt Management Agency accepted higher volumes compared to the announced quantity in each case. At the 12-months discount Treasury bill auctions the average yield decreased by 2 basis points to 0.52 percent after the interest rate decision; however, the bid-to-cover ratio was mixed on this maturity. In the case of the 3- and 5-year bonds, demand typically exceeded the announced quantity; the average yield on the 3-year government securities auction fell by 16 basis points to 1.56 percent, while it slight rose, to 2.77 percent in the case of the 5-year bonds.

In line with the trends observed in the region, the 5-year Hungarian CDS spread rose – but to lesser degree than the regional average – by 2 basis points and finally closed the period at 87 basis points.

3. Trends in lending

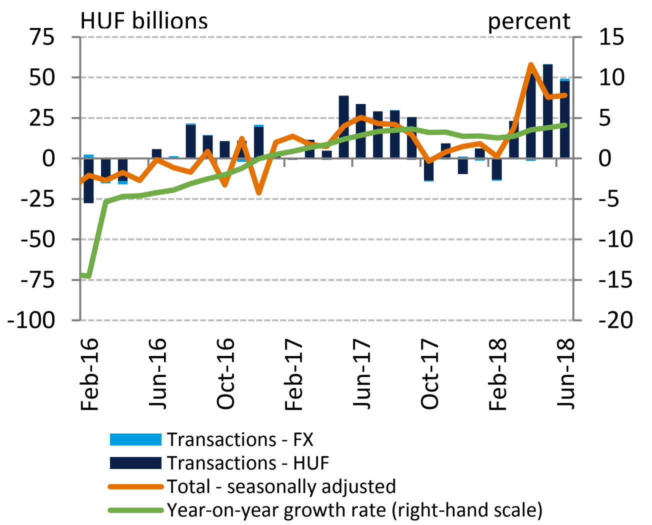
In June, the outstanding corporate loans of credit institutions rose by HUF 79 billion due to transactions, which is equivalent to an increase of HUF 103 billion on a seasonally adjusted basis. The outstanding loans of credit institutions to households rose by HUF 49 billion as a result of transactions, which represents a growth of HUF 39 billion on a seasonally adjusted basis. Thus, the annual growth in outstanding lending amounted to 4.1 percent in June 2018. The smoothed interest rate spread of forint corporate loans rose by 35 basis points to 2.2 percentage points in June.

Chart 16: Net borrowing by non-financial corporations



Source: MNB

Chart 17: Net borrowing by households

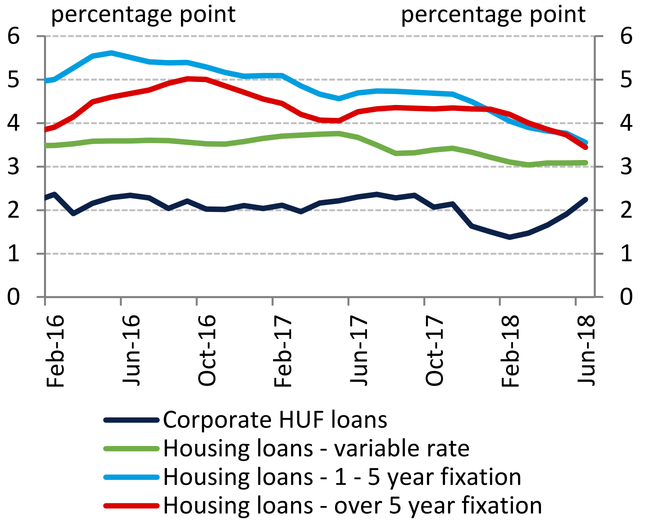


Source: MNB

In June, the outstanding corporate loans of credit institutions rose by HUF 79 billion due to transactions, which is equivalent to an increase of HUF 103 billion on a seasonally adjusted basis (Chart 16). In a breakdown by currency, forint loans and foreign currency loans increased by HUF 48 billion and HUF 31 billion, respectively. In June 2018, corporate lending rose by 12.1 percent in annual terms. Excluding money market transactions, the volume of new loans amounted to HUF 393 billion during the month; the value of the money market transactions was HUF 91 billion. Accordingly, the gross amount of new loans in June was up 25 percent in annual terms.

The outstanding loans of credit institutions to households rose by HUF 49 billion as a result of transactions, which represents a growth of HUF 39 billion on a seasonally adjusted basis. Thus, the annual growth in outstanding lending amounted to 4.1 percent in June 2018 (Chart 17). The value of new contracts concluded during the month was HUF 156 billion, and thus in annual terms it registered a growth of 31 percent. As regards the individual sub-segments, the volume of new housing loans and personal loans rose by 39 and 48 percent, respectively. Since September 2017, the Certified Consumer-friendly Housing Loan products already contributed by HUF 144 billion to the growth in lending for housing purposes in a healthy structure, and half of the fixed-rate loans concluded during the month were already certified loans.

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 rose by 35 basis points to 2.2 percentage points in June (Chart 18). However, the spread on small-amount market loans – typically taken by SMEs – exceeds the average of the other Visegrád countries by 80 basis points. The average smoothed interest rate spread on variable rate housing loans calculated on the basis of the annual percentage rate (APR) dropped by 25 basis points compared to September 2017, to 3.1 percentage points. In the case of loans the interest rate of which is fixed for 5 years at the most, this value dropped by 115 basis points to 3.5 percentage points, while in the case of loans fixed for more than 5 years, it fell by 90 basis points to 3.4 percentage points. In a regional comparison, the problem of high spreads affects primarily the market of long-term fixed-rate transactions.