MACROECONOMIC AND

FINANCIAL MARKET DEVELOPMENTS

BACKGROUND MATERIAL

TO THE ABRIDGED MINUTES OF THE

MONETARY COUNCIL MEETING

OF 16 OCTOBER 2018

october

2018

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

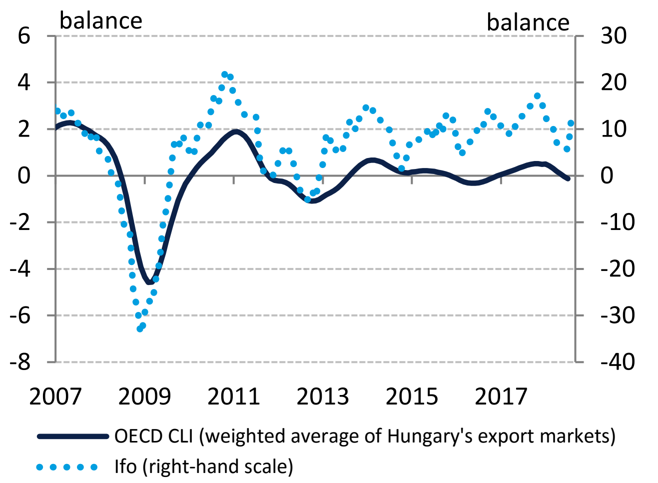
Table of contents

1. Macroeconomic developments

1.1. Global macroeconomic environment

In the second quarter of 2018, the GDP growth of the United States continued more briskly, while the economic growth rate in the euro area decelerated. According to the latest international forecasts, on the whole, the growth prospects of the euro area slackened in the past months.

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



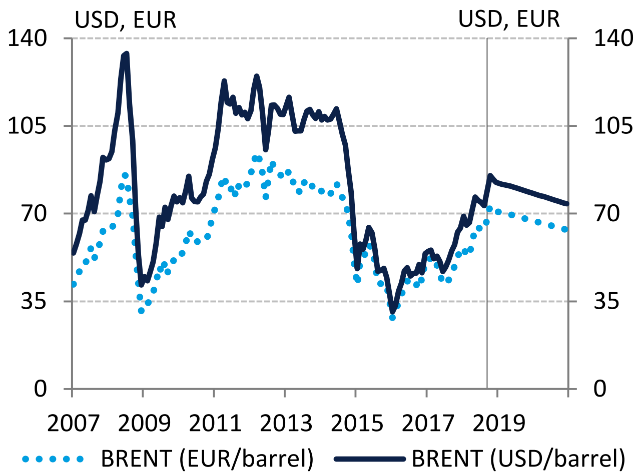
Source: OECD, Ifo

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 2.9 percent in annual terms. The economic expansion is primarily attributable to corporate investments and household consumption; however, net exports also made a positive contribution to growth. Growth prospects of the US economy are favourable on the whole, contributed by the tax cuts and the economic stimulus effects of the infrastructural investment programme. However, due to the deepening of the foreign trade tensions, the indebtedness and **vulnerability of the US economy may come to the surface.**

Economic growth in the euro area continued in the second quarter at a slower rate than observed in the previous quarters. **The growth calculated on year-on-year and quarter-on-quarter basis was 2.1 and 0.4 percent, respectively.** The growth in the euro area was primarily attributable to the rise in investments and household consumption. The industrial production of Hungary's key trading partner (Germany) declined in August in annual terms, also accompanied by a fall in the new orders of the German industry. **Expectations with regard to the German economy's performance this year and next year lessened** in the past period, which is primarily attributable – in addition to the decelerating industrial production – to the more moderate than expected external demand. The Ifo index, capturing the outlooks of the German industry, substantially declined in the previous months, but in August it showed significant adjustment (Chart 1).

The medium-term growth prospects of the euro area are mostly surrounded by negative risks. The already introduced and the anticipated **import duties may curb global economic growth.** The primary channel appears through the direct and indirect foreign trade relations, but it also influences the direction of FDI flow and the rise in foreign trade duties may exert negative impact on the investment decisions as well. The exit of the United Kingdom from the EU and the increase in the uncertainty arising from the exit negotiations also carry negative risk for the European Union's medium-term growth. Further

Chart 2: World market prices of Brent crude oil



Source: Bloomberg

identifiable negative risks include the Chinese slowdown, the increase in money market turbulences, the high government debt in Italy and the potential fiscal measures.

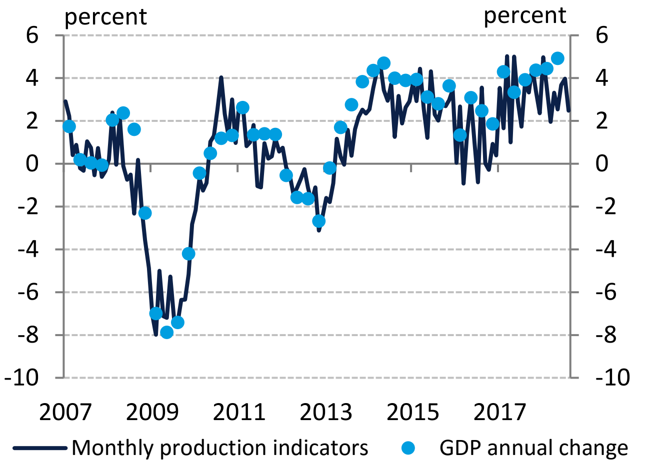
The Central and Eastern European region proved to be the growth centre of the European Union in the first half of 2018 as well. Growth in the countries of the region was primarily supported in the first half of the year by the dynamically increasing domestic demand. In the past months the growth in retail sales volume and industrial production of the region continued.

Underlying inflation measured in the euro area moderately declined in September. Based on the preliminary data, euro area inflation slightly increased, primarily reflecting the rise in energy and unprocessed food prices. The world market price of crude oil, showing substantial volatility, continued to increase (Chart 2). The volatility of oil prices in the past period is explained by several factors, of which the most important ones are the geopolitical tensions in the Middle East; the crisis in Venezuela; the growth in the crude oil production of OPEC from July; the greater than expected decline in US crude oil reserves and the rise in production to a historical high level; as well as the US sanctions affecting Iran and the increasing trade tensions. World market price of industrial commodities has not changed significantly, while the price of unprocessed food declined in September.

1.2. Domestic real economy developments

According to the HCSO's revised data release, in the second quarter of 2018, Hungary's gross domestic product rose by 4.9 percent year on year. The economic growth may have continued in the past months as well, also evidenced by the available monthly production indicators. In parallel with the decline in public employment, unemployment rate in June-August 2018 rose to 3.7 percent. The tightness indicators calculated from the ratio of job vacancies and unemployed persons indicate the continued tightening of the labour market environment.

Chart 3: Monthly production indicators and GDP growth



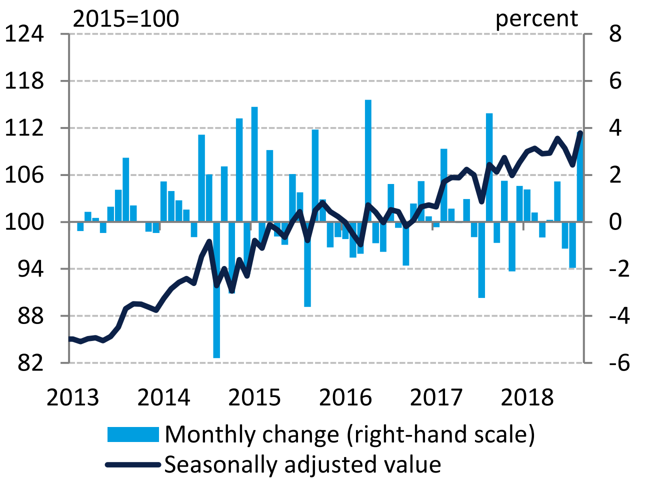
Note: Weighted average of monthly production indicators (industrial output, construction output and retail sales). The weights are derived from regression explaining GDP growth.
Source: MNB calculation based on HCSO data

1.2.1 Economic growth

According to the HCSO's revised data release, in the second quarter of 2018, Hungary's gross domestic product rose by 4.9 percent year on year, and thus GDP growth in the first half-year amounted to **4.7** percent. Based on the seasonally and working-day adjusted data, **Hungary's GDP rose by 1.0 percent quarter on quarter.** Based on the monthly production indicators, the rise in GDP may have continued in the third quarter of 2018 (Chart 3). Industrial and construction output rose in the past months; in addition, retail sales volume also materially increased in August.

In August 2018, **industrial output was up by 1.5 percent** year on year, while production **rose by 3.8 percent compared to the previous month** (Chart 4). In August, the working-day adjusted index exceeded last year by 4.5 percent compared to the same period of previous year. The output of the subsectors showed a mixed picture; **the output of vehicle manufacturing – representing a considerable weight – declined, while the manufacture of electronic products and the chemical industry output materially rose.** The rise in industrial sales was supported primarily by the increase in domestic sales. Following the decline observed in the past half-year, forward-looking indicators substantially rose in August and stand at a favourable level at present as well.

Chart 4: Development in industrial production

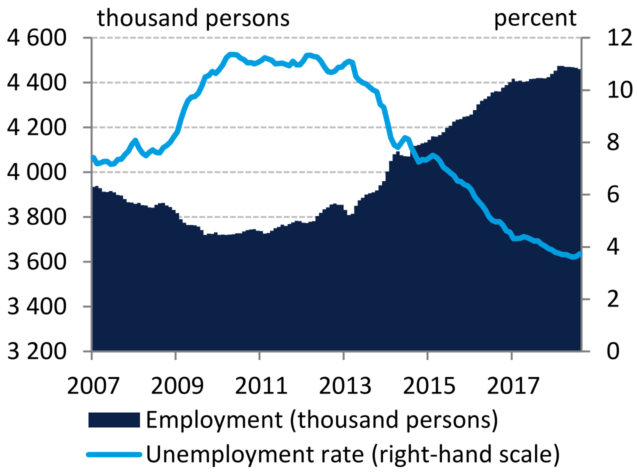


Source: MNB calculation based on HCSO data

According to the preliminary data, **expressed in euro terms, the value of exports and imports was up by 0.9 and by 6.1 percent,** respectively, year on year in August 2018 and thus trade surplus declined by EUR 381 million. In July 2018, the terms of trade have deteriorated year on year, primarily caused by the rise in the relative price of mineral fuels. In a historical comparison, export and import prices substantially rose in August, contributed by a wide range of products.

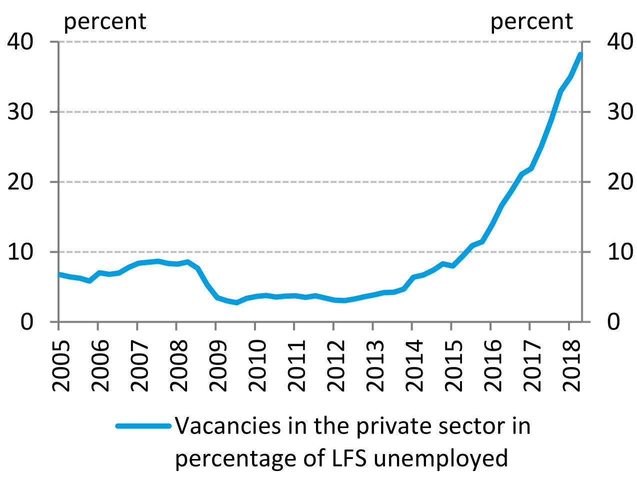
In July 2018, the volume of construction output was up by 38.0 percent year on year, while output increased by 4.6 percent compared to the previous month. Output increased both in the case of buildings and other structures. In the case of the construction of buildings, the growth in production was attributable to educational, industrial, commercial and residential buildings. Owing to the government investments, primarily to infrastructure developments (road, railway, public utility), construction of other buildings continued to

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

rise. The volume of new contracts materially rose year on year; within that the volume of contracts for buildings slightly decreased, while those for other structures considerably increased compared to the value registered in the previous year. In the case of other buildings, the high-value contracts were concluded primarily for the improvement of the transport infrastructure and telecommunication networks. The month-end volume of the construction companies' contract portfolio still substantially exceeds the level of last year, which primarily reflects the housing market contracts committed until 2019 and the already committed EU funds.

In August, according to the preliminary data, **retail sales volume was up by 6.3 percent year on year, based on the seasonally unadjusted data**. According to the data adjusted for the calendar effect, the volume of sales grew by 6.8 percent year on year. Retail sales volume has substantially accelerated compared to the previous month (1.1. percent). As regards the structure of retail sales, turnover continued to rise in a wide range of products in August. The substantial rise in the turnover of non-food consumer durables continued to support growth significantly.

1.2.2. Employment

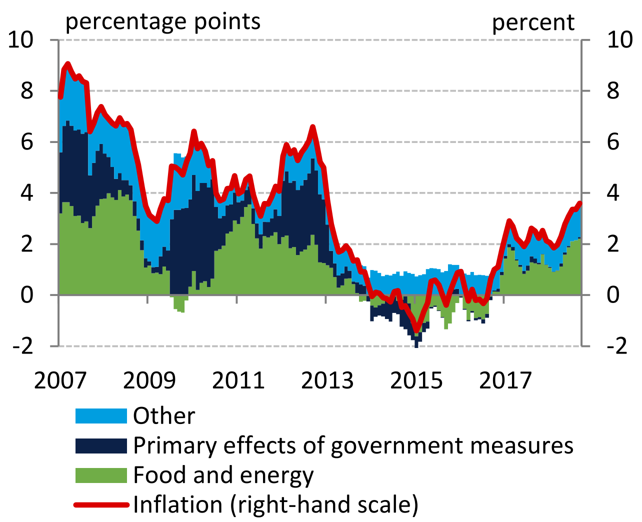
According to the (seasonally adjusted) data of the Labour Force Survey, in June-August 2018 the active labour force participation rate was constant, while employment slightly decreased. The moderate decrease in total employment was attributable, in addition to the declining public employment, by the slightly lower number of workers employed abroad, and thus the primary labour market is still characterised by an increase in employment. In parallel with the decrease in public employment, the unemployment rate rose to 3.7 percent (Chart 5).

In the second quarter of 2018, based on the number of job vacancies, corporate labour demand continued to increase both in manufacturing and the market services sector. The **tightness indicators** calculated from the ratio of job vacancies and unemployed persons **indicate the continued tightening of the labour market environment** (Chart 6).

1.3. Inflation and wages

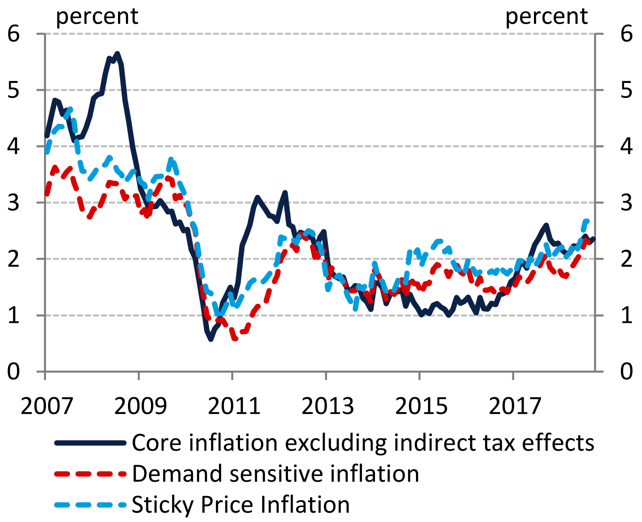
In September 2018 inflation was 3.6 percent, while both core inflation and core inflation excluding indirect taxes stood at 2.4 percent. Underlying inflation indicators did not change materially compared to the previous month, and steadily stood around 2.5 percent. In July 2018, gross average wage in 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. In addition, the 2.5 percentage point decline in the social contribution tax also supported corporate wage developments.

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 July 2018, gross average wage in the private sector rose by 10.6 percent year on year. The continued strong wage dynamics **was supported**, in addition to the **historically tight labour market environment** determining the underlying wage setting trend, by this year's **raising of the minimum wage and guaranteed wage minimum by 8 and 12 percent**, respectively, and **the 2.5 percentage point decline in the social contribution tax also supported corporate wage developments.** Following the adjustment in June, the regular average wage slightly increased month on month. Wage dynamics in sectors with below-average wage was still higher than in sectors with above-average wage.

1.3.2. Inflation developments

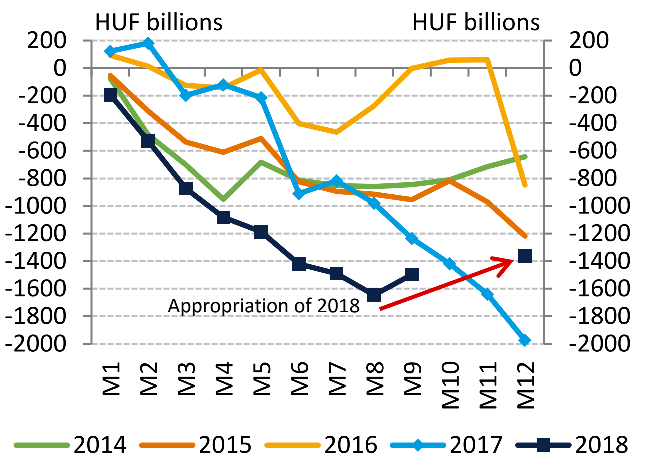
In September 2018, year-on-year inflation was 3.6 percent, while core inflation and core inflation excluding indirect taxes both stood at 2.4 percent (Chart 7). Inflation and core inflation rose by 0.2 and 0.1 percentage point, respectively, relative to the previous month. The growth in inflation was caused by the rise in the volatile prices of unprocessed food. Core inflation increased due to the raising of the excise tax of tobacco products.

Underlying inflation indicators did not change materially compared to the previous month, and steadily stood around 2.5 percent (Chart 8). Both core inflation excluding indirect taxes and the inflation of sticky-price products stagnated, while the inflation of demand-sensitive products moderately rose. The indicators capturing the short-term inflation trends increased. As a result of this, the gap between the consumer price index and the dynamics of the underlying indicators continued to grow. In August 2018, agricultural producer prices rose by 6.0 percent in annual terms, while the domestic sales prices of the consumer goods industry increased by 1.6 percent.

1.4. Fiscal developments

In September 2018, the central sub-sector of the general government closed with a surplus of HUF 150 billion, and thus the current year's cumulated deficit amounted to HUF 1,496 billion at the end of September. Despite the surplus, the cumulated deficit is higher compared to the previous years and also exceeds the appropriation in the 2018 budget.

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



Source: Budget Act of 2018, Hungarian State Treasury

In September 2018, the **central sub-sector of the general government** closed with a surplus of HUF 150 billion, and thus the current year's cumulated deficit amounted to HUF 1,496 billion at the end of September. Despite the surplus, the cumulated deficit is higher compared to the previous years, and also exceeds the appropriation in the 2018 budget (Chart 9). The high value of the cumulated government deficit is attributable to the pre-financing of EU transfers and the lower amount of the related revenues, the higher expenditures of the budgetary organisations and the absence of last year's one-off items (growth tax credit, land sales).

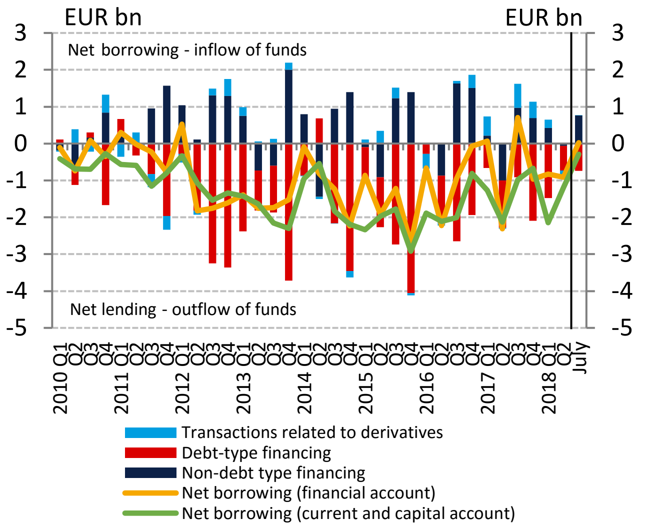
In September 2018, the **revenues of the central sub-sector** were up by HUF 445 billion year on year, which is attributable to the VAT revenues realised in higher amount as a result of the change in the reimbursement rules and the higher inflow of EU transfers in the reporting month. Wage-related revenues (personal income tax and social contribution tax), and gross VAT revenues dynamically rose year on year.

The **expenditures of the central sub-sector** rose by HUF 39 billion compared to September 2017, which was caused primarily by the payment to the central budgetary organisations and chapters exceeding the year-on-year value by HUF 64 billion.

1.5. External balance developments

In July, net lending of the economy and the current account both decreased. According to the financial account data, in July under major net FDI inflow, the net external debt of the economy, based on transactions, also substantially 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 July, net lending of the economy and the current account both decreased. As a result of the decrease in external trade balance, net lending fell to EUR 290 million, while the current account surplus dropped to EUR 60 million during the month. The decline in the goods and services balance was attributable to the materially declining goods balance resulting from the stoppage in car manufacturing during the month, the effect of which was, however, mitigated by the improvement in the services balance. The effect of the decline in the external trade balance was partially offset by the significant improvement in the transfer balance, which was attributable to the rising absorption of EU transfers. The income balance deficit did not change during the month (Chart 10).

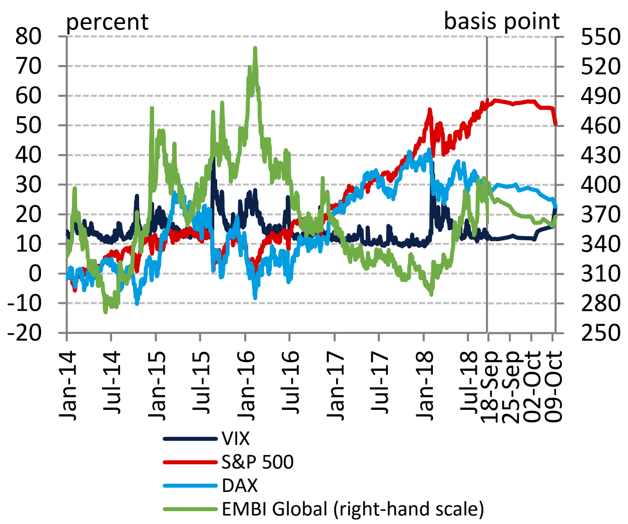
According to the financial account data, in July under significant net FDI inflow, the net external debt of the economy, based on transactions, also substantially declined. The net FDI inflow of EUR 780 million was primarily linked to the growth in reinvested earnings. Based on the monthly transactions, the decline of more than EUR 740 million in **net external debt** was mostly attributable to the decrease in the net external debt of the **general government**, also supported by the decline in non-residents' government securities holding and the rise in the receivables from EU. By contrast, **banks**' net external debt rose by almost EUR 260 million in July, caused by the growth in liabilities in excess of the increase in external assets. Under the decline in trade credit, the net external debt of the **corporate sector** also declined in the period under review.

2. Financial markets

2.1. International financial markets

Overall, global investor sentiment deteriorated since the last interest rate decision. The deterioration in sentiment was mostly caused by the new duties introduced as part of the trade war and the news on Italy's fiscal deficit target for next year. The VIX index, measuring stock exchange volatility, rose to 23 percent during the period under review, and both the developed and emerging market stock market indices declined. Yields rose both on the developed and emerging government securities markets, albeit the rate thereof in the emerging markets fell short of that observed on the developed markets. Foreign exchange markets were determined by the appreciation of the dollar against the developed and emerging currencies. Oil prices increased further, and thus the Brent and WTI rose close to USD 82 and USD 72, respectively.

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



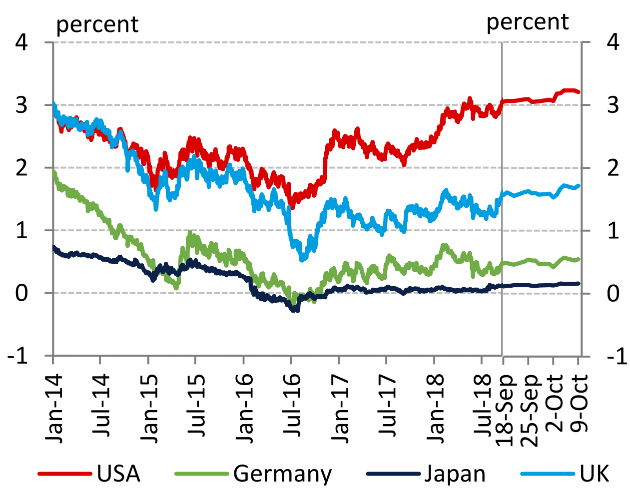
Source: Bloomberg

Overall, global investor sentiment deteriorated since the last interest rate decision. Risk aversion was greatly attributable to the new developments related to the and to the rise in the budget deficit target of Italy. The VIX index rose by 10 percentage points to 23 percent, while the MOVE index, measuring the volatility of the US bond market, once again rose above 55 basis points (Chart 11).

Both the developed and the emerging market stock exchange indices declined during the period under review. The key US and European equity indices fell by 4-6 percent, and the emerging market MSCI index decreased by 3.5 percent as well compared to the start of the period. Despite the new import duties, introduced within the scope of the trade war between the US and China, the Shanghai equity index fell only moderately, which was attributable to the MSCI's announcement, according to which consideration will be given to increasing the weight of Chinese equities in their indices.

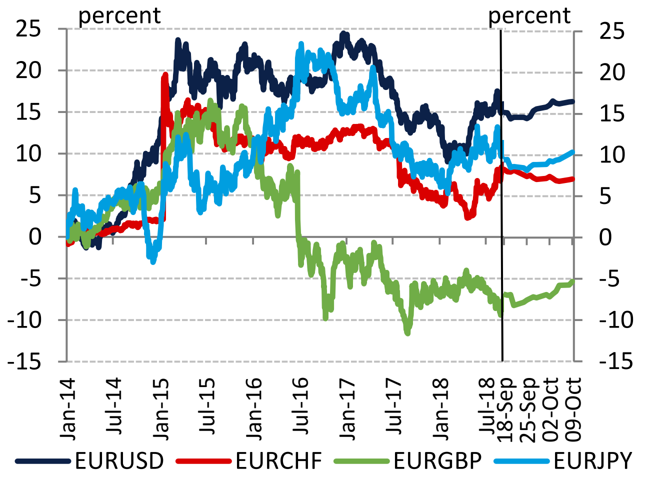
Both developed and emerging market long-term government securities yields rose. On the developed markets, the US long-term yield rose by 11 basis points to 3.16 percent, while the German yield increased by 7 basis points to 0.55 percent. The emerging markets also registered an increase in yields, albeit smaller than in the US ones, as a result of which the EMBI Global fell by 10 basis points during the period under review (Chart 12).

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

In the past months, the dollar appreciated against most of the developed currencies, i.e. 1.5 percent against the euro, almost 3 percent against the Swiss franc and 0.5 percent against the Japanese yen. **The emerging currencies also depreciated against the dollar,** which in the case of the currencies of the CEE region was around 2-3 percent (Chart 13).

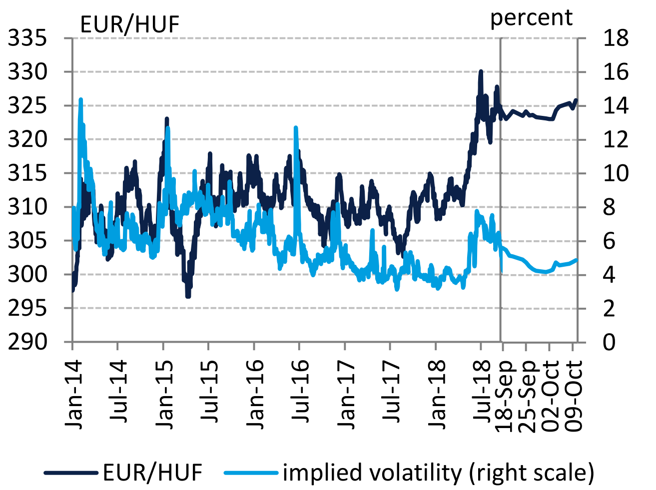
Italian financial instruments substantially underperformed in the period under review, which was linked to the raising of the budget deficit target of Italy. The deficit target of the 2019 Italian budget was approved by the governing parties at 2.4 percent, which is higher than the formerly planned level of 1.9 percent. The news caused the spread between the 10-year German and Italian government securities' yield to widen by 64 basis points and the Italian stock exchange index also dropped by 8 percent.

Oil prices rose further during last month. The Brent price rose by 4 percent close to USD 82, while the WTI prices reached USD 72, also after a growth of 4 percent. The period was determined by the investors' expectations related to the anticipated US sanctions against Iran. In addition, the fact that an increasing number of oil trading houses have forecast oil prices of USD 100, also had an upward pressure on prices.

2.2. Developments in domestic money market indicators

During the period under review, the forint exchange rate stood steadily around 324, followed by a minor depreciation at the beginning of October, and thus on the whole it closed the period at a slightly weaker level against the euro compared to the previous interest rate decision. The 3-month BUBOR fell by 4 basis points to 17 basis points. The short end of the government securities yield curve shifted downward, while the long end over 5 years shifted upward, and thus the curve became steeper. Non-resident' forint government securities holding rose in nominal terms, with their share still standing at 22 percent.

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

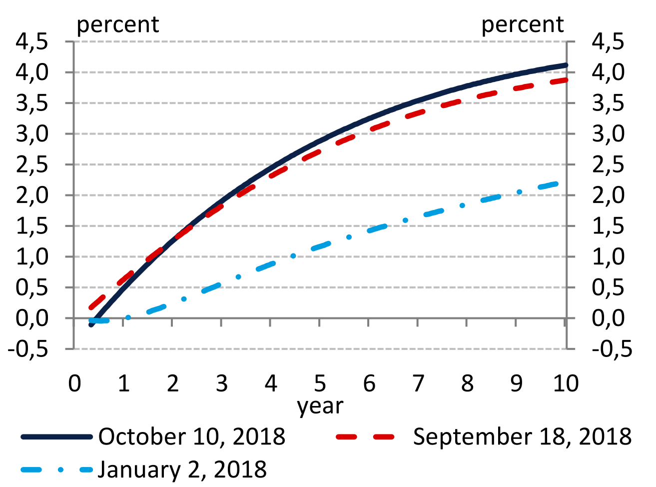


Source: Bloomberg

During the period under review, the forint exchange rate against the euro showed no material shift and steadily stood around 324. Some depreciation was observed in the past days, and thus the forint depreciated against the euro by 0.6 percent since the last interest rate decision. All of the currencies of the region depreciated in the past period; the Polish zloty and the Romanian leu registered a minimal, 0.2-0.3 percent depreciation, while the Czech koruna depreciated by roughly 1.5 percent. The volatility of the forint exchange rate declined in most of the period, after the moderate rise observed in the summer months (Chart 14).

The 3-month BUBOR, relevant for the monetary policy transmission, first declined from 21 basis points by 5 basis points to 16 basis points, followed by a rise to **17 basis points** in the second half of the period. **The short section of the government yield curve shifted downward by 15-20 basis points, 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

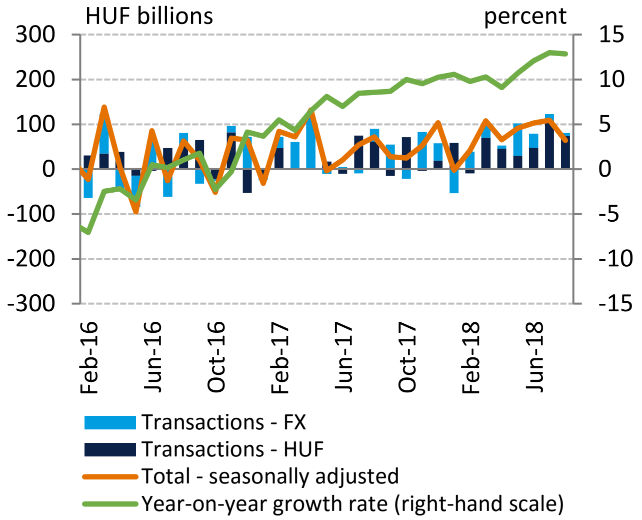
The Government Debt Management Agency reduced the issued volume of the 3-months discount Treasury bills, which may have contributed to the decline in the auction yields. In the case of the 3-month auctions, the Government Debt Management Agency reduced the announced quantity from HUF 50 billion to HUF 25 billion, which also contributed to the fall in the average yield. The average auction yield first fell to -0.05 percent from 0.1 percent registered at the start of the period, and then rose to -0.03 percent. At the 12-month discount Treasury bill auctions the average yield at the start of the period was 0.58 percent, which fell to 0.37 percent at the early October auctions. **In the case of the 3- and 5-year securities, demand at the auctions was well above the announced quantity, and thus it was augmented in the case of both maturities.** The average yield in the case of the 3-year securities rose by 3 basis points to 1.76 percent, while at the 5-year securities it fell by 2 basis points to 2.96 percent. Demand for the 15-year securities was moderate, and thus compared to the initially announced HUF 10 billion the Government Debt Management Agency reduced the issued volume by HUF 3 billion. The average yield rose by 14 basis points to 3.97 percent.

In line with the trends observed in the region, the 5-year Hungarian CDS spread rose by 4 basis points and finally closed the period at 88 basis points.

3. Trends in lending

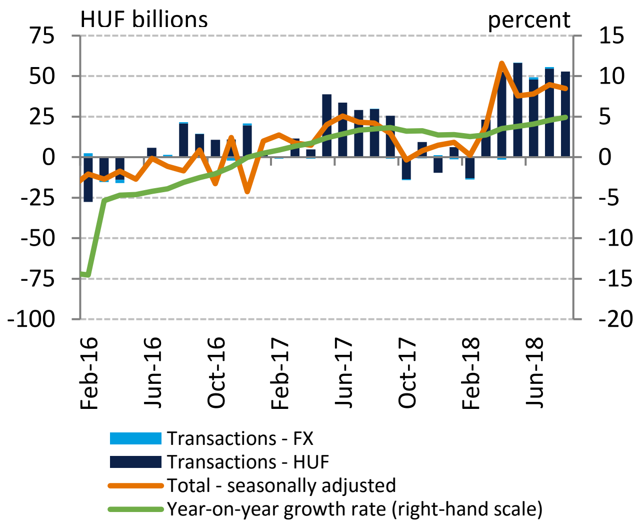
In August, the outstanding corporate loans of credit institutions rose by HUF 80 billion due to transactions, which is equivalent to an increase of HUF 64 billion on a seasonally adjusted basis. The outstanding loans of credit institutions to households rose by HUF 53 billion as a result of transactions, which represents a growth of HUF 42 billion on a seasonally adjusted basis. Thus, the annual growth in outstanding lending amounted to 4.9 percent in August 2018.

Chart 16: Net borrowing by non-financial corporations



Source: MNB

Chart 17: Net borrowing by households

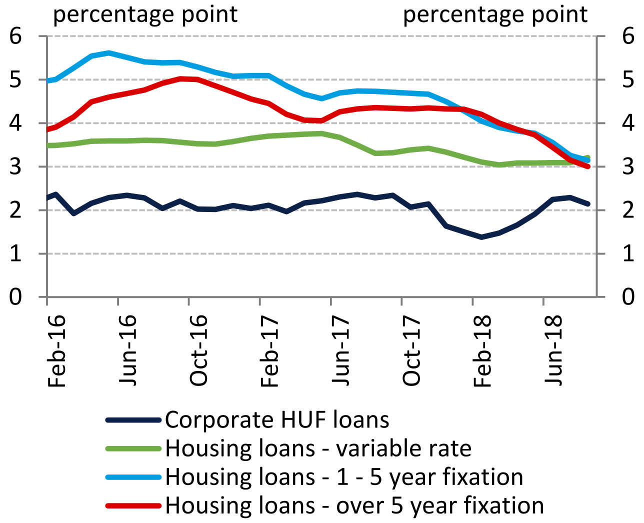


Source: MNB

In August, the outstanding corporate loans of credit institutions rose by HUF 80 billion due to transactions, which is equivalent to an increase of HUF 64 billion on a seasonally adjusted basis (Chart 16). In a breakdown by currency, forint loans and foreign currency loans increased by HUF 74 billion and HUF 6 billion, respectively. In August 2018, corporate lending rose by 12.8 percent in annual terms. Excluding money market transactions, the volume of new loans amounted to HUF 266 billion during the month. Accordingly, the gross amount of new loans in August was up 18 percent in annual terms.

The outstanding loans of credit institutions to households rose by HUF 53 billion as a result of transactions, which represents a growth of HUF 42 billion on a seasonally adjusted basis. Thus, the annual growth in outstanding lending amounted to 4.9 percent in August 2018 (Chart 17). The value of new contracts concluded during the month was HUF 148 billion, and thus in annual terms it registered a growth of 29 percent. As regards the individual sub-segments, the volume of new housing loans and personal loans rose by 39 and 49 percent, respectively. Since September 2017, the Certified Consumer-friendly Housing Loan products already contributed by HUF 212 billion to the growth in lending for housing purposes in a healthier structure, and 60 percent 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 dropped by 15 basis points to 2.15 percentage points in August (Chart 18). However, the spread on small-amount market loans – typically taken by SMEs – exceeded the average of the other Visegrád countries by 75 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 15 basis points compared to September 2017, to 3.2 percentage points. In the case of loans the interest rate of which is fixed for 5 years at the most, this value dropped by 155 basis points to 3.15 percentage points, while in the case of loans fixed for more than 5 years, it fell by 135 basis points to 3 percentage points, and thus the average spread on fixed-rate loans is already below that on the variable-rate loans. In a regional comparison, the problem of high spreads still affects primarily the market of long-term fixed-rate transactions.