MACROECONOMIC AND

FINANCIAL MARKET DEVELOPMENTS

BACKGROUND MATERIAL

TO THE ABRIDGED MINUTES OF THE

MONETARY COUNCIL MEETING

OF 24 JULY 2018

JULY

2018

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The background material 'Macroeconomic and financial market developments' is based on information available until 19 July 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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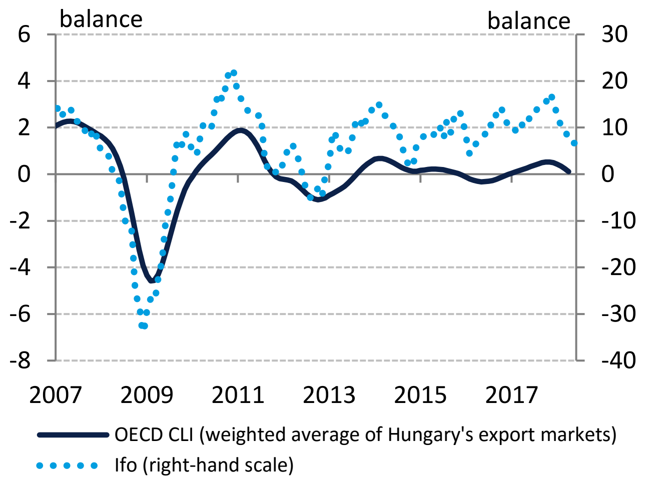
1. Macroeconomic developments

1.1. Global macroeconomic environment

In the first quarter of 2018, 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. In the past period the uncertainty related to a trade war substantially increased.

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



Source: OECD, Ifo

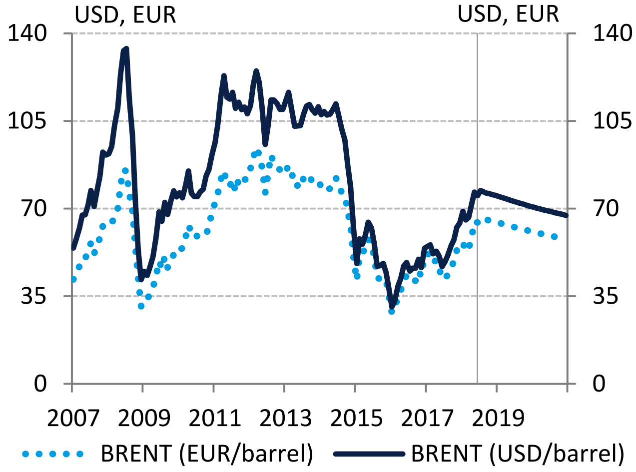
Growth in the global economy, and particularly in the euro area, continued in the first quarter of 2018. The favourable growth observed in the first quarter is expected to continue in the US economy, supported – in addition to investments – also by household consumption and government measures. However, primarily due to the changes in the fiscal policy, the **indebtedness and vulnerability of the US economy** may once again come into the limelight.

In the first quarter of 2018, **the performance of several EU economies** (United Kingdom, France, Italy) **fell short of the expectations** and also of the performance observed in the previous quarters. In addition, in the second quarter, **the underlying business climate indices of the EU and other countries typically declined** (Chart 1). As result of the incoming Q1 GDP data and the deteriorating business climate, the European Commission reduced its forecast related to the economic growth of Europe (both in respect of the euro area and the European Union as a whole). The reduction of the growth prospects is primarily the result of the incoming actual figures, which project weaker-than-expected exports and restrained business climate. Additional downside risks can be also identified, which may prolong the slowdown observed, and deemed to be temporary, in the first half-year. 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.

Within the EU, there are significant growth differences among the regions. **The Central and Eastern European economies showed substantially faster growth in the first quarter** compared to the more developed, Western European member states. Looking ahead, the difference may persist as the production indicators available for the second quarter were also more favourable in the CEE region (albeit downside risks also can be identified).

The forecasts continue to show positive economic growth globally and in Europe as well. However, the growth in the EU economy is still surrounded by substantial risks; moreover, the **degree of downside risks has also increased.** The most significant downside risk is the **fiscal stimulus in**

Chart 2: Brent crude oil world market prices



Source: Bloomberg

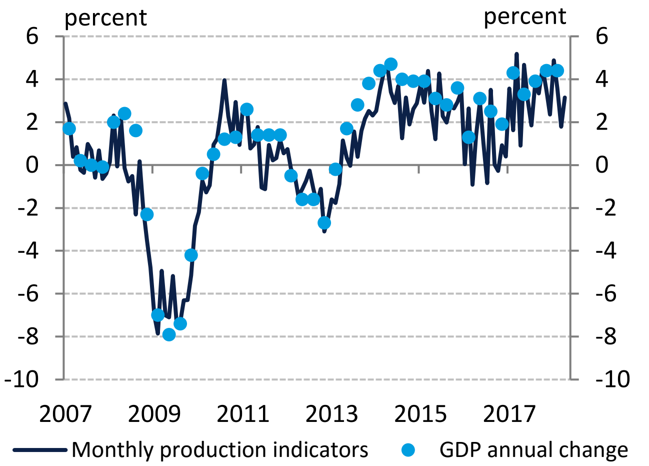
the USA (the announced infrastructure investment programme and the tax cuts), while the recently announced **import tariffs may exert negative impact on the global economy, including Europe,** due to the dominance of the United States within global imports. The exit of the United Kingdom from the EU and the lack of clarity concerning the circumstances of the process represent additional negative risk for the European Union's medium-term growth. In addition, the increased volatility observed in the financial markets may represent a risk in the ascending phase of the European business cycle.

Global inflation rose in the past month; however, underlying inflation in the euro area continues to develop moderately. In June – based on the preliminary data – euro area inflation rose, primarily reflecting the growth in fuel prices. The world market price of crude oil, showing substantial volatility in the past month, was USD 75 on average (Chart 2). The volatility of oil prices, observed in the previous month, is attributable to several factors, of which the most important ones are the geopolitical tensions in the Middle East; the crisis in Venezuela; the outcome of the OPEC meeting in Vienna at the end of June, according to which a moderate increase in output levels will commence in July; the decline in the US stocks of crude oil; and the call by the USA upon its allies to terminate oil imports from Iran in full. The world market price of unprocessed food declined in June.

1.2. Domestic real economy developments

According to the HCSO's detailed data release, in 2018 Q1 Hungary's GDP grew by 4.4 percent year on year. Economic growth on the expenditure side was supported by consumption and investments, while on the output side market services were the key growth contributors. In the period of March - May 2018, the unemployment rate dropped to 3.7 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

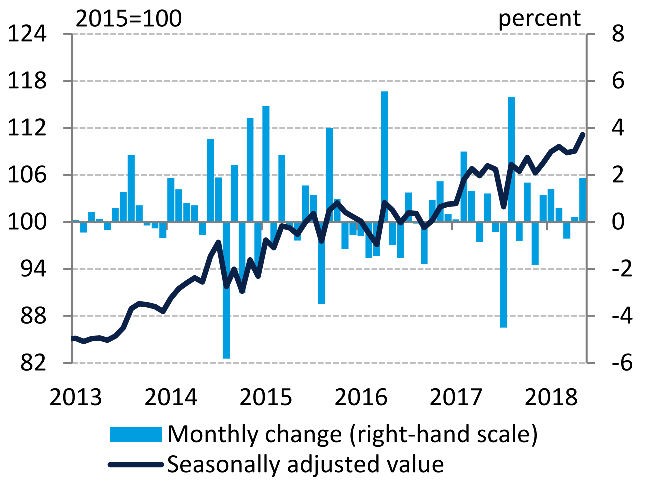
According to the data release by the HCSO, **in the first quarter of 2018, Hungary's gross domestic product grew at a rate of 4.4 percent** year on year. Based on the seasonally and working-day adjusted data, **Hungary's GDP rose by 1.2 percent quarter on quarter.** Economic growth on the expenditure side was primarily supported by **consumption and investments,** while on the output side **market services** were the key contributors (Chart 3).

Vigorous growth in GDP may continue in the second quarter of 2018 as well, also evidenced by the available monthly production indicators. In May 2018**, industrial output was up 0.4 percent** year on year, while production **rose by 1.9 percent compared to the previous month** (Chart 4). There was one working day fewer in May than last year, and thus the production level adjusted for the working-day effect rose by 3.8 percent. **The output of the manufacturing subsectors showed a mixed picture year on year.** The output of vehicle manufacturing, representing a considerable weight, declined on the whole; within that manufacturing of vehicle parts rose, while the production of road vehicles showed a considerable decline. The rise in chemical industry output continued, which was still supported primarily by rubber and plastic manufacturing. In addition, a growth in metal and food industry production could be observed. On the whole, **industrial sales** slightly decreased as a combined result of the upturn in domestic sales and the decline in export sales. **Compared to the beginning of the year, the forward-looking indicators typically declined.**

Expressed in euro terms, the value of exports was down by 0.1 percent, while that of imports was up by 2.9 percent, year on year in May 2018, and thus trade surplus decreased by EUR 245 million. In April 2018, the terms of trade have 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 chemicals, which was counterweighted by the improvement in the relative price of food and various processed goods only partially.

In May 2018 the volume of construction output was up by 15.1 percent year on year, while output increased by 6.1

Chart 4: Development in industrial production

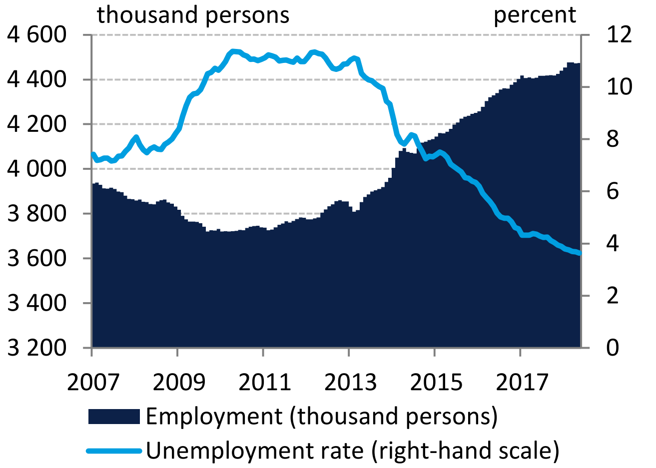


Source: MNB calculation based on HCSO data

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 output growth was still primarily attributable to industrial buildings. Owing to the government investments (mostly infrastructure developments), construction of other structures continued to rise significantly. The volume of new contracts decreased year on year, with positive contribution by the contracts concluded for the construction of buildings. The rise in the volume of new contracts concluded for the construction of buildings is primarily attributable to the contracts for office, warehouse and educational buildings. The decline in new contracts concluded for the construction of other structures may be primarily attributable to the strong base of last year, and thus to the commitments related to EU funds. 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.

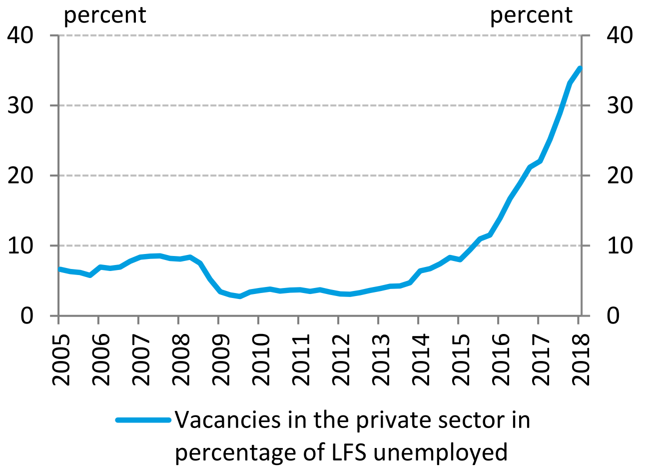
In May, according to the preliminary data, **retail sales volume was up 7.2 percent year on year, based on the seasonally unadjusted data,** at the same time when adjusted for the calendar effect, it shows a growth of 7.8 percent. In the past months turnover increased in a wide range of products. **Food sales rose at a rate exceeding the average of the previous period,** and the considerable growth in the turnover of non-food consumer durables also continued. 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 Latvia.

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

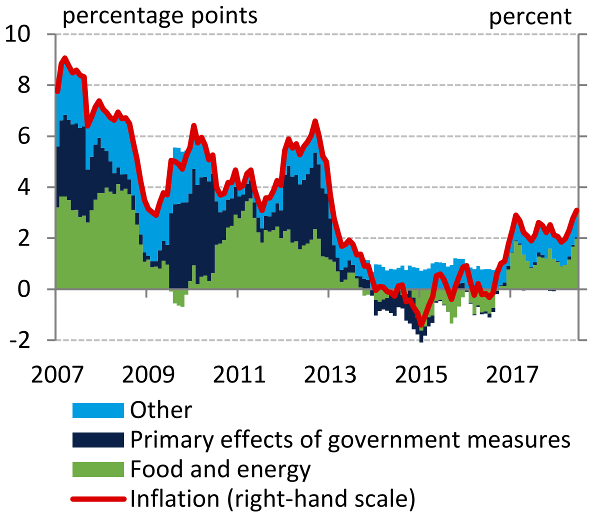
According to the seasonally adjusted data of the Labour Force Survey, in the period of March - May 2018, both the labour force participation rate and total employment remained practically unchanged. **The unemployment rate declined to 3.7 percent** (Chart 5).

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

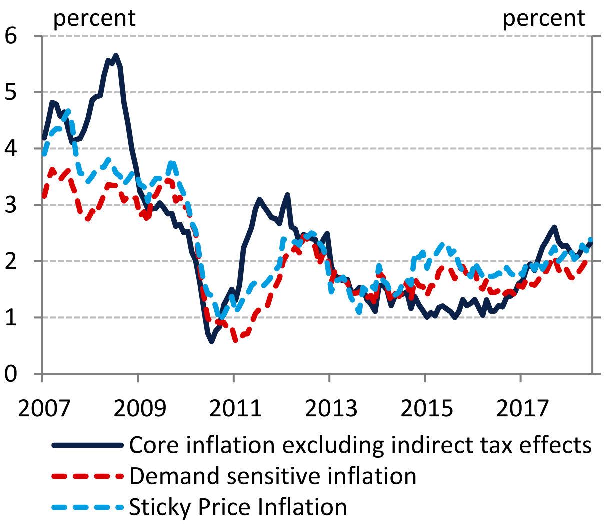
In June 2018, inflation stood at 3.1 percent, core inflation at 2.4 percent and core inflation excluding indirect taxes at 2.3 percent. Underlying inflation indicators moderately rose compared to the previous month. The indicators continue to be around 2.0-2.5 percent. In May 2018, gross average wage in the private sector rose by 10.6 percent year on 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 June 2018, year-on-year inflation was 3.1 percent, while core inflation and core inflation excluding indirect taxes stood at 2.4 and 2.3 percent, respectively (Chart 7). Inflation rose by 0.3 percentage point, while core inflation remained unchanged relative to the previous month. The increase in inflation was primarily attributable to the rise in fuel prices.

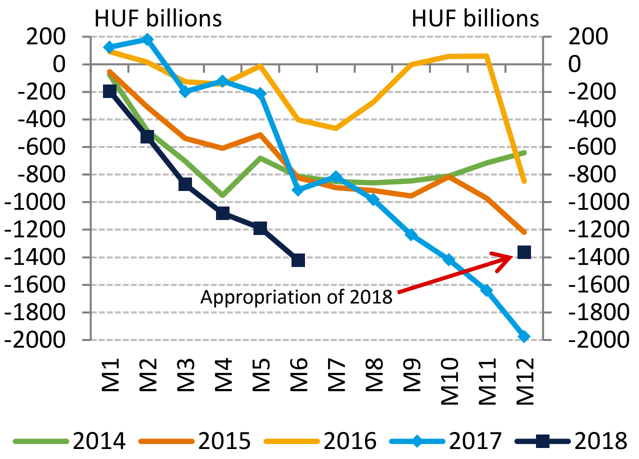
Underlying inflation indicators moderately rose compared to the previous month. The indicators continue to be around 2.0-2.5 percent (Chart 8). In May 2018, agricultural producer prices rose by 0.6 percent in annual terms, while the domestic sales prices of the consumer goods sectors increased by 1.2 percent.

According to the June data, the inflation data fell short of, while the core inflation data was in line with the forecast of the Inflation Report published in June. Underlying inflation developed in accordance with the central bank's expectations. 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. At the same time, it will reach the 3 percent target sustainably by mid-2019.

1.4. Fiscal developments

In June 2018, the central sub-sector of the general government closed with a deficit of HUF 233 billion, and thus the current year's cumulated balance amounted to -HUF 1,421 billion, representing a higher deficit than registered in the previous years and also exceeding the estimate 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 June 2018, **the central sub-sector of the general government** closed with a deficit of HUF 233 billion, and thus the current year's cumulated balance amounted to -HUF 1,421 billion, representing a higher deficit than registered in the previous years and also exceeding the estimate in the 2018 budget (Chart 9). The high cumulated government deficit is mostly attributable to the pre-financing of EU transfers, as well as to the budgetary organisations' higher expenditures than last year.

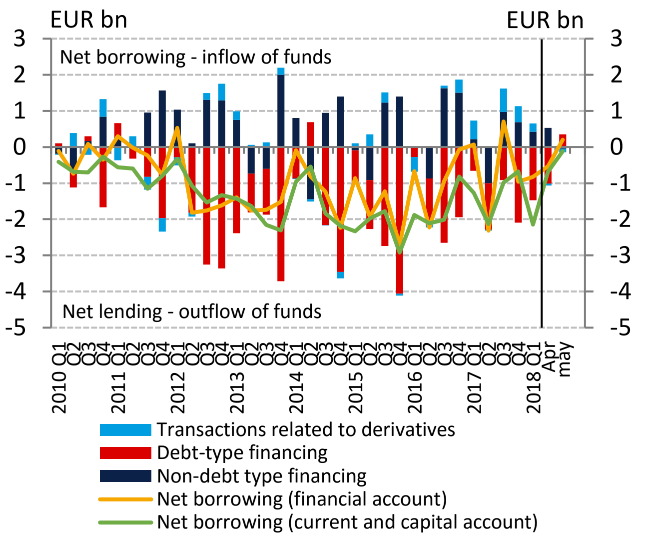
The revenues of the central sub-sector were up by HUF 205 billion year on year. Compared to last June, VAT revenues were higher by HUF 152 billion due to the decreasing VAT reimbursements resulting from the change in the reimbursement deadline and rise in revenues resulting from the 7.8 percent growth in retail sales volume in May, exceeding the growth registered in the previous months. Wage-related revenues rose by HUF 38 billion in June. Thus, the cumulated growth represents a surplus revenue of roughly HUF 250 billion compared to the first half 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 fell by HUF 260 billion compared to June 2017, since the major decline in the volume of disbursed EU transfers was only partially offset by the rising expenditures of the budgetary organisations.

1.5. External balance developments

In May – following the growth observed in the previous month – net lending of the economy and the current account declined. According to the financial account data, net external debt of the economy rose, while foreign direct investments moderately 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 May – following the growth observed in the previous month – net lending of the economy and the current account declined (Chart 10). The current account balance showed a moderate deficit (-EUR 36 million), while net lending, including capital transfers, still indicated saving position (EUR 114 million). The decline in the external balance indicators was caused by the seasonal rise in the income balance deficit, attributable to dividend payments. In addition, the decrease in the transfer balance also reduced net lending, which was due to the lower absorption of EU transfers. The still significant goods and services balance – in line with the trends in industrial production – has not changed significantly during the month.

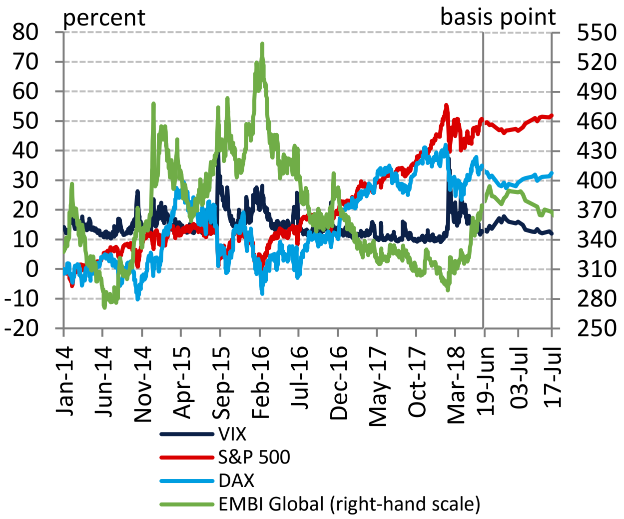
According to the financial account data, net external debt of the economy rose, while foreign direct investments moderately declined. According to the items of the financial accounts, a net borrowing of EUR 200 million has developed. During the month, the economy's net FDI stock slightly decreased, which was attributable to the continued repayment of the intercompany loans. Based on the monthly transactions, net external debt rose by roughly EUR 350 million in May. The **general government's** net external debt decreased by EUR 1.3 billion, which was mostly related to the rising foreign exchange reserves resulting from the MNB's fine-tuning swap tenders. The margin deposits, rising as a result of the USD appreciation, also increased the foreign exchange reserves, and thus they had no effect on the general government's net external debt. As the combined result of the decreasing external assets and increasing external liabilities, the **banking sector**'s net external debt rose by EUR 1.5 billion, in connection with the general government's growing fine-tuning swap holding. The **corporate sector**'s net external debt rose by roughly EUR 200 million in May.

2. Financial markets

2.1. International financial markets

Global investor sentiment improved since the last interest rate decision, which was stopped neither by the news on the commercial war, nor by the US Fed's anticipated interest rate hike in the near future. On the whole, developed market stock exchanges rose by 1.3 percent, while emerging market indices declined to the same degree. The VIX index, measuring stock exchange volatility, was down close to 12 percent from the level of roughly 13 percent. Developed market long-term yields dropped moderately while those in the emerging markets declined to a larger degree, typically by 10-15 basis points. In the emerging government securities markets, the almost 30 basis points drop in the EMBI Global bond spread reflected the easing in the emerging market's risk aversion. In the foreign exchange markets the dollar slightly depreciated against the euro and the emerging market currencies, while it appreciated by 1-2 percent against other developed market currencies. The Brent and WTI oil prices developed differently: while the Brent price decreased by 4.2 percent, the WTI price rose by 4.6 percent, and thus the Brent-WTI gap significantly narrowed.

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



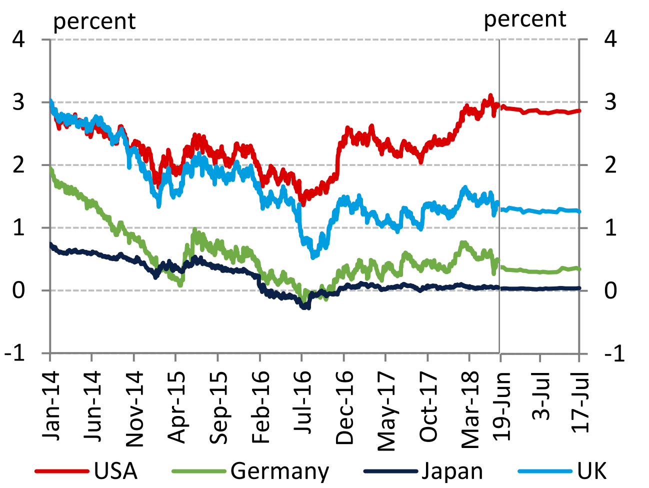
Source: Bloomberg

Investor sentiment improved since the previous interest rate decision. The improvement in global sentiment was not hindered either by the threat of deepening commercial conflicts, or by the Fed's interest rate hike, priced with increasing probability to September. Following the more significant, 5 percentage points, decline in the VIX index registered in the previous month, it dropped further by 1 percentage point, thereby falling to 12 percent during the period under review, while the MOVE index, measuring the volatility of the US bond market decreased by 6 basis points close to its historic low, to 47 basis points (Chart 11).

Developed market stock exchange indices moderately rose, while the emerging market ones decreased to the same degree during the period under review. Each of the US equity indices rose by 2 percent, while the key European equity indices moderately decreased or remained constant. On the whole, the developed market MSCI index rose by 1.3 percent, while the MSCI index measuring the performance of the emerging market decreased to the same degree compared to the start of the period.

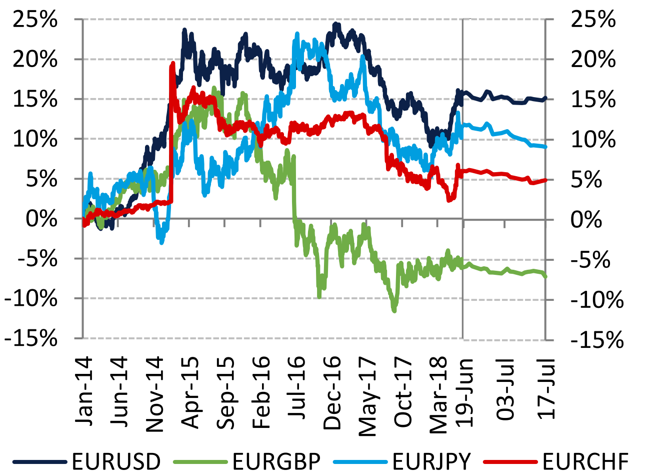
Developed market long-term yields decreased mildly, while those in the emerging markets declined to a larger degree (Chart 12). On the developed markets, the US long-term yield once again fell below 3 percent after a decline of 4 basis points, and the euro area yield also dropped by 3 basis points, while the Japanese ten-year yield rose moderately, by merely 1 basis point. On the emerging markets, the ten-year yields typically fell by 10-15 basis points, while the Russian, South African and Brazilian long-term yields declined by 40-50 basis points and the Argentine yield rose by 50 basis points. Since the last interest rate decision, the emerging markets were characterised by capital outflows, while last week the bond funds already registered capital inflow, and thus, on the whole, long-term

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

yields decreased in all emerging regions. The easing of the risk aversion sentiment was also reflected by the almost 30 basis point decrease of EMBI Global.

The probability of the US interest rate hike in September increased from 80 percent, registered a month ago, to 90 percent. The market prices a fourth interest rate increase to take place this year with increasing probability. Based on the dot plot, eight Fed policy-makers predict a total of four or more interest rate hikes for 2018, since the labour market becomes increasingly tight and inflation exceeds the target earlier than planned before. In the case of ECB, the market pricing still projects no interest rate increase for this year.

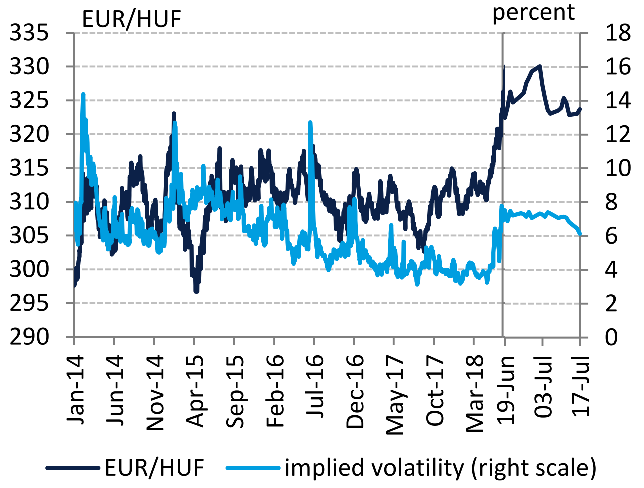
During the period under review, the dollar depreciated against the euro, while other developed currencies depreciated against the dollar (Chart 13). The dollar depreciated against the euro by 0.6 percent, while it appreciated against the British pound and the Swiss franc by roughly half percent, and against the Japanese yen by 2.5 percent. The emerging currencies, with the exception of the Turkish lira, appreciated against the dollar by 1-3 percent, while the currencies of the Central and Eastern European region appreciated by roughly 1 percent.

The Brent and WTI oil prices developed differently: while the Brent price decreased by 4.2 percent, the WTI price rose by 4.6 percent, as a result of which the gap between the price of the two oil types dropped from USD 9 to USD 3. WTI and Brent closed the period at USD 68 and USD 71, respectively. In recent months anxieties related to the deepening of the commercial war grew, which resulted in declining oil prices through the expectations related to the fall in oil demand. At the same time, fears related to the uncertainty of oil supply did not diminish either. These two factors together, increasing the volatility of oil market prices, shaped the price of the two oil types differently. Last week, US oil reserves fell to a degree unseen for a long time, by 12.5 million barrels, which somewhat supported the WTI prices, and thereby also the decrease in the Brent-WTI gap.

2.2. Developments in domestic money market indicators

In the first half of the period under review, the forint depreciated against the euro, followed by an adjustment in recent weeks and it closed the period close to 324, i.e. the observed level at the previous interest rate decision. The 3-month BUBOR rose from 18 basis points to 26 basis points. The 1-5 year section of the government securities yield curve shifted upwards, while the over 5-year section moved downward, and thus the curve became less steep. The rise in the 5-year benchmark yield was the consequence of the change in the benchmark securities. Non-residents' forint government securities holding moderately decreased by the end of the period, while their share remained at around 21 percent. Hungarian 5-year CDS spread stands at 86 basis points, representing a decrease of 6 basis points since the last interest rate decision.

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

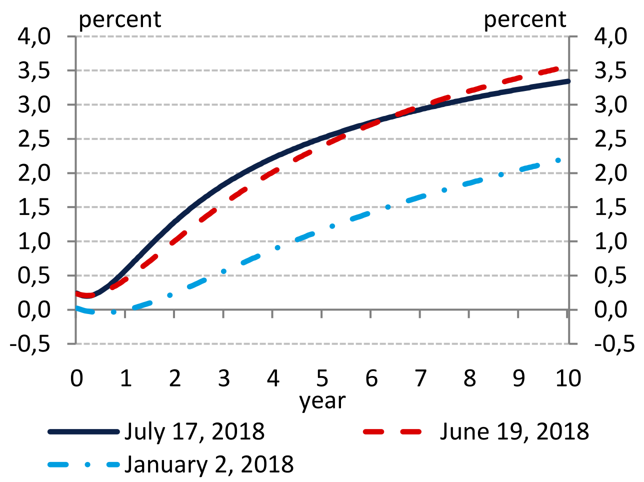


Source: Bloomberg

In the first half of the period under review, the forint depreciated by more than 2 percent, reaching the level of 330, followed by an appreciation in recent weeks, back to the level of 324, observed at the beginning of the period. 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, during the entire period the currencies of the region appreciated against the euro by 0.1 percent. The volatility of the forint exchange rate moderately decreased compared to the turbulent period observed in the past weeks, and thus the one-week implied volatility dropped to 6.1 percent from the previous level of 7.5 percent (Chart 14).

The 3-month BUBOR, relevant for the monetary policy transmission, first rose from 18 basis points to 30 basis points, followed by a partial adjustment, and thus it stood at 0.26 percent at the end of the period. **The 1-5 year section of the government yield curve shifted upward by 10-30 basis points, while the over 5-year section thereof decreased by 5-20 basis points**, thereby making the yield curve less steep (Chart 15).

Chart 15: Shifts in the spot government yield curve



Source: MNB, Reuters

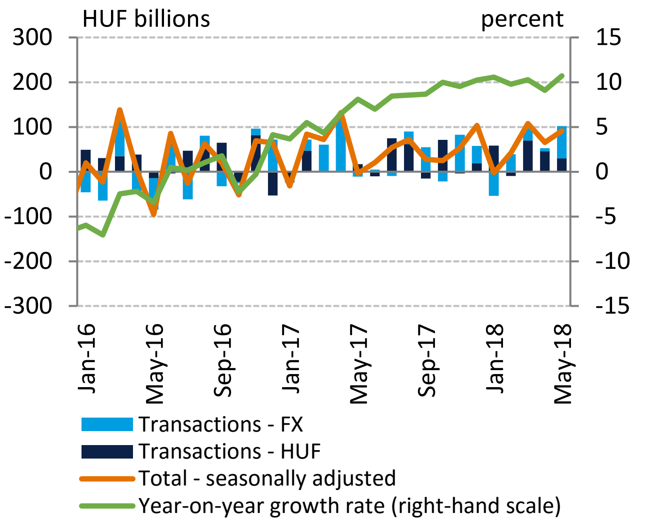
Forint government securities auctions were characterised by mixed demand, and thus in certain cases the Government Debt Management Agency accepted higher than the announced quantity, while in other cases lower than that. In the case of the 3-month auctions, the average auction yield rose until the middle of the period, followed by an adjustment. On the whole, compared to the first auction of the period, the average yield was 0.19 percent, i.e. 4 basis points higher, at the last auction. At the 3-month discount Treasury bill auctions, the Government Debt Management Agency reduced the accepted volume compared to the announced quantity several times. The bid-to-cover ratio at the 12-month Treasury bill auctions was stronger than the average, but the average auction yield rose by 2 basis points to 0.56 percent. In the case of the 3- and 5-year bonds, demand typically exceeded the announced quantity, while the average yields rose with the exception of the 10-year government bond auctions. The average yield at the last 10-year auction of the period was around 3.5 percent.

In line with the trends observed in the region, the 5-year Hungarian CDS spread decreased by 6 basis points and finally closed the period at 86 basis points.

3. Trends in lending

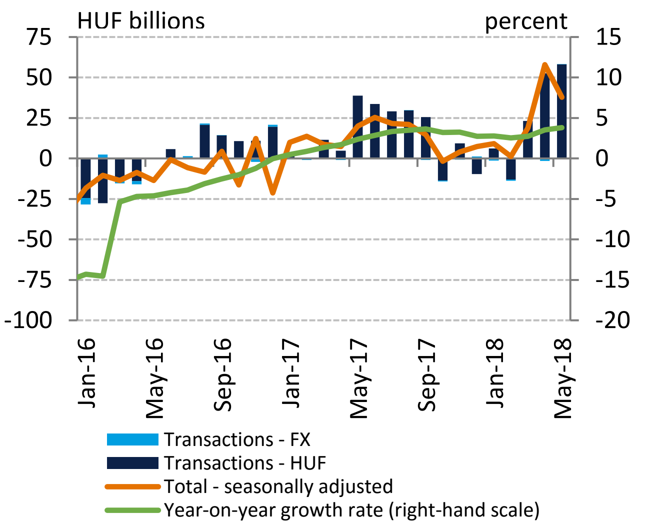
In May, the outstanding corporate loans of credit institutions rose by HUF 102 billion due to transactions, which is equivalent to an increase of HUF 91 billion on a seasonally adjusted basis. The outstanding loans of credit institutions to households rose by HUF 58 billion as a result of transactions, which represents a growth of HUF 38 billion on a seasonally adjusted basis. Thus, the annual growth in outstanding lending amounted to 3.8 percent in May 2018. The smoothed interest rate spread of forint corporate loans rose by 25 basis points to 1.9 percentage points in May.

Chart 16: Net borrowing by non-financial corporations



Source: MNB

Chart 17: Net borrowing by households

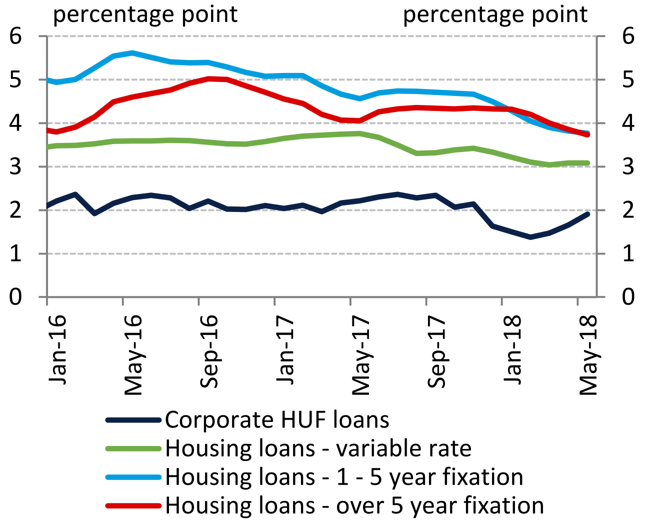


Source: MNB

In May, outstanding corporate loans of credit institutions rose by HUF 102 billion due to transactions, which is equivalent to an increase of HUF 91 billion on a seasonally adjusted basis (Chart 16). In a breakdown by currency, forint loans and foreign currency loans increased by HUF 30 billion and HUF 72 billion, respectively. In May 2018, corporate lending rose by 10.7 percent in annual terms, which complies with the MNB's new credit convergence path. Excluding money market transactions, the volume of new loans amounted to HUF 236 billion during the month; the value of the money market transactions was HUF 70 billion. Accordingly, the gross amount of new loans in May was up 25 percent in annual terms.

The outstanding loans of credit institutions to households rose by HUF 58 billion as a result of transactions, which represents a growth of HUF 38 billion on a seasonally adjusted basis. Thus, the annual growth in outstanding lending amounted to 3.8 percent in May 2018 (Chart 17). The value of new contracts concluded during the month was HUF 145 billion, and thus in annual terms it registered a growth of 35 percent. As regards the individual sub-segments, the volume of new housing loans and personal loans rose by 39 and 50 percent, respectively. Since September 2017, the Certified Consumer-friendly Housing Loan products already contributed by HUF 112 billion to the growth in lending for housing purposes in a sounder 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 25 basis points to 1.9 percentage points in May (Chart 18). However, the spread on small-amount market loans – typically taken by SMEs – exceeds the average of the other Visegrád countries by 70 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 95 basis points to 3.8 percentage points, while in the case of loans fixed for more than 5 years, it fell by 60 basis points to 3.7 percentage points. In a regional comparison, the problem of high spreads affects primarily the market of long-term fixed-rate transactions.