MACROECONOMIC AND FINANCIAL MARKET DEVELOPMENTS

BACKGROUND MATERIAL

TO THE ABRIDGED MINUTES OF THE

MONETARY COUNCIL MEETING

OF 22 MAY 2018

MAY

2018

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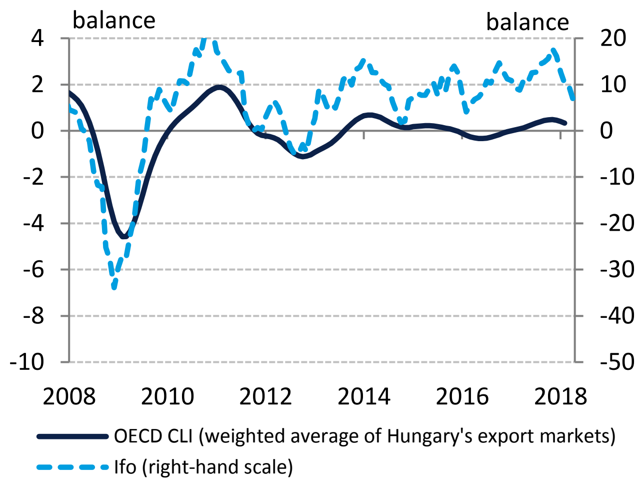
1. Macroeconomic developments

1.1. Global macroeconomic environment

In the first quarter of 2018, in addition to the economic growth in the euro area, the GDP growth of the United States also continued. According to the updated forecasts of international institutions, medium-term outlooks of the euro area continue to be favourable; however, on the whole, international forward-looking indicators declined in recent months, which may imply risks to global growth prospects.

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



Source: OECD, Ifo

Global economic performance developed favourably during 2017. According to the preliminary data release, the **economy of the euro area expanded by 2.5 per cent in annual terms** in the first quarter of 2018. Germany's GDP growth – despite the moderate industrial production – continued in the first quarter, which may have been supported primarily by the strong domestic demand. **The economic performance of Hungary's most important trading partner** (Germany) **may develop favourably in the coming years as well, which is confirmed by the improving projections of the international institutions**. In the first two months of 2018, German industrial production – due to last year's strong base – showed more moderate expansion, but growth dynamics improved in March. The correction of the Ifo expectations, capturing the outlooks of the German industry, continued (Chart 1).

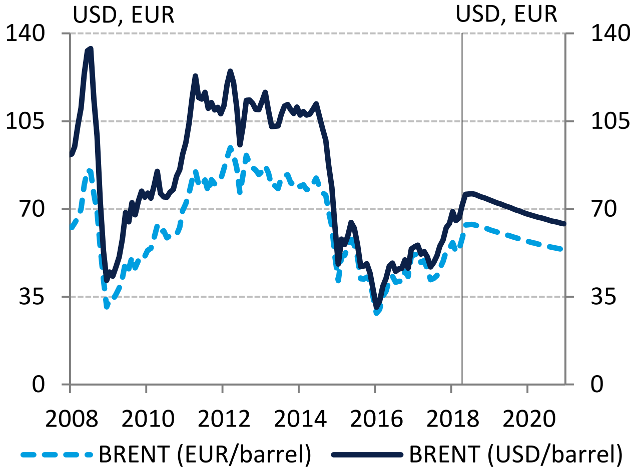
Dynamic economic growth in Austria continued at the beginning of this year as well, mostly contributed to by the rise in household consumption and investments. The performance of the French and Italian economies rose in the first quarter of 2018, slightly falling short of the growth rate observed in the previous quarters.

Buoyant growth in the countries of the region was primarily supported by the dynamically increasing domestic demand last year as well. All countries of the region registered a significant rise in consumption, supported by the improving labour market conditions, increasing real income resulting from the low inflation environment and high wage dynamics, and favourable household confidence. In addition, the growth in retail sales volume and industrial production of the region continued at a more moderate rate.

The economy of the United States expanded at a rate exceeding expectations, i.e. by 2.9 per cent year on year. Growth was primarily supported by corporate investments, but household consumption and net exports also contributed positively.

According to the expectations, medium-term outlooks of the euro area continue to be favourable; however, growth

Chart 2: Brent crude oil world market prices



Source: Bloomberg

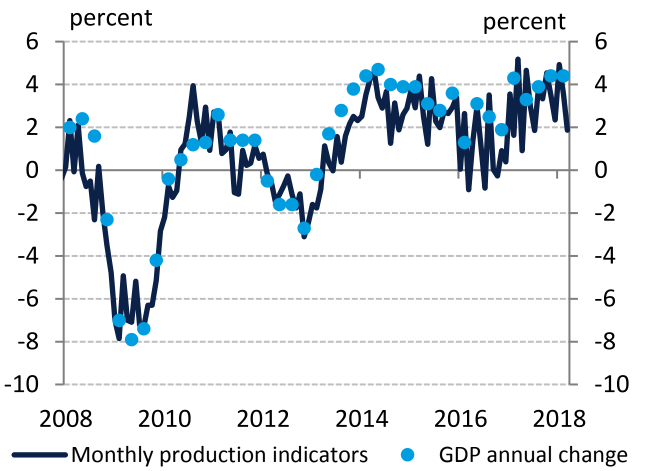
is surrounded by two-directional risks. Fiscal stimulus in the United States may be identified as an upside risk, which – primarily through the cut of corporate income tax and personal income tax rates – may support both US and global economic growth in the coming period. These measures substantially improved the United States' economic growth prospects. **However, on the whole, international forward-looking indicators declined in recent months,** which may imply risks to global growth prospects. **The import tariffs announced recently may exert negative impact on the global economy** due to the dominance of the United States within global imports. Geopolitical tensions and rise in oil prices may curb global growth. The exit of the United Kingdom from the EU and the lack of clarity concerning the circumstances of the process, may exert unfavourable impact on the European Union's medium-term growth prospects.

No substantial change took place in the global inflationary environment; underlying inflation in the euro area continues to develop moderately. In April, euro area inflation declined primarily reflecting the fall in the price index of market services due to base effects. The world market price of crude oil rose from USD 72 to over USD 79 in the previous month (Chart 2). The rise in oil prices was caused by the geopolitical tensions in the Middle East, the crisis in Venezuela and the supply curbing effect of the production cut agreement of OPEC. The price of industrial commodities has not changed significantly, while the world market price of unprocessed food rose in April.

1.2. Domestic real economy developments

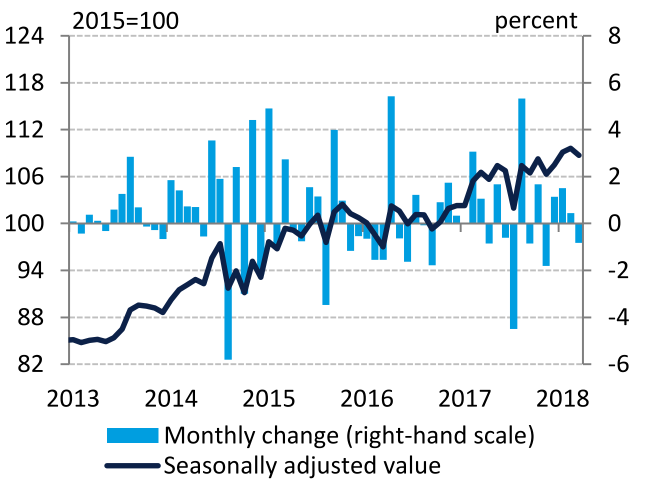
According to the HCSO's preliminary data release, in 2018 Q1 Hungary's GDP grew by 4.4 per cent year on year. Services contributed to the growth of the economy to the largest degree. In the first quarter of 2018, the unemployment rate stood at 3.7 per cent.

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

Chart 4: Development in industrial production



Source: MNB calculation based on HCSO data

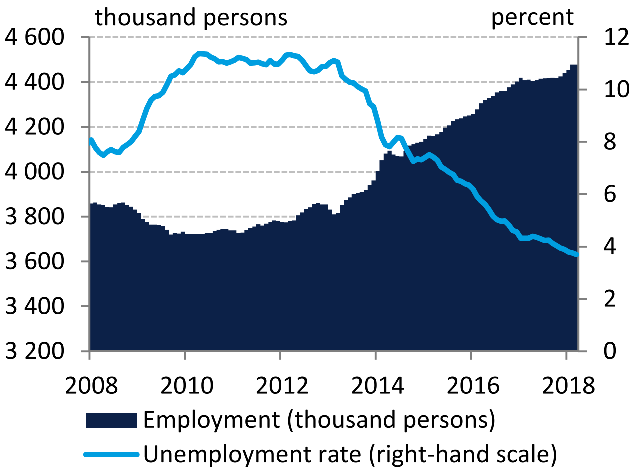
1.2.1. Economic growth

According to HCSO's preliminary data release, **in the first quarter of 2018, Hungary's gross domestic product grew at a rate of 4.4 per cent** year on year. Based on the seasonally adjusted data, **Hungary's GDP rose by 1.2 per cent quarter on quarter.** On the output side, growth was supported primarily by services (Chart 3), while the performance of industry and construction, due to one-off impacts, raised GDP only to a more moderate degree. No accurate information is yet available on the structure of the economic growth's expenditure side, but according to our expectations, household consumption and investments may have been the primary contributors to economic growth.

In March 2018, **industrial output was down 2.4 per cent year** on year, while production **fell by 0.7 per cent compared to the previous month** (Chart 4). **The output of the majority of the manufacturing subsectors declined year on year.** The output of vehicle manufacturing, representing a considerable weight, decreased; however, within the subsector the manufacturing of vehicle parts expanded, while the production of road vehicles declined. Chemical industry was supported by an increase in the rubber and plastic manufacturing subsector, while drug manufacturing declined in March. Additionally, a slight growth in the metal industry and a moderation in the production of machinery equipment could be observed. The setback in vehicle manufacturing is also supported by the vehicle manufacturing indicator, estimated by weighting the counties hosting the large vehicle plants. As a result of the buoyant domestic sales and rising exports, industrial sales increased compared to the previous month. **Altogether, forward-looking indicators show an invariable picture compared to the previous month.** The business sentiment of Hungary's key trading partners developed positively compared to February. German industrial production accelerated in March, and new orders were also stable. Nevertheless, further deterioration of the Ifo expectations was observed. In addition, Hungarian confidence indicators show a mixed picture; national PMI was stable, while Hungarian ESI slightly deteriorated.

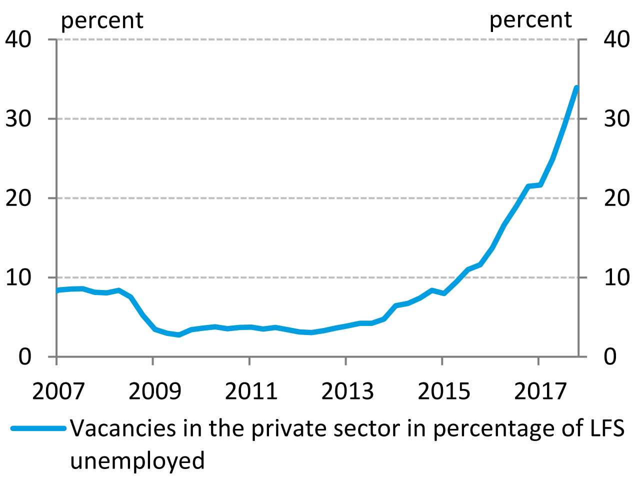
Expressed in euro terms, **the value of exports and imports was down 3.8 and 1.1 per cent, respectively,** year on year in March 2018, and thus trade surplus decreased by EUR 264 million. In February 2018, the terms of trade have not

Chart 5: Number of persons employed and the unemployment rate



Source: HCSO

Chart 6: Indicator of labour market tightness



Note: quarterly data

Source: National Employment Service, HCSO

changed year on year. With regards to the development in the terms of trade, the deteriorating effect of the change in the relative price of machinery and transport equipment was counterweighted by the relative price change in food and various processed goods.

In March 2018, **the volume of construction output was up 1.4 per cent** year on year, while **output decreased by 10.3 per cent compared to the previous month**. Output stagnated in the construction of buildings, and slightly rose in the construction of other buildings. The moderate dynamics may have been caused by the fewer working days and the unfavourable weather conditions for the industry. Owing to the government investments (mostly infrastructure developments), construction of other buildings increased with the same rate as last year. The volume of new contracts declined year on year; new contracts for the construction of buildings substantially rose, and in parallel with this the volume of new contracts concluded for the construction of other buildings declined. The month-end volume of the construction companies' contract portfolio substantially exceeded that of last year, which was primarily attributable to the housing market contracts committed until 2019 and the already committed EU funds.

In March, according to the preliminary data, **retail sales volume was up 8.5 per cent year on year, based on the seasonally not adjusted data,** at the same time when adjusted for the calendar effect, it showed a growth of 7.1 per cent due to the Easter effect. In the previous months turnover increased in a wide range of products. The considerable rise in the turnover of non-food consumer durables continued to be the primary contributor to the sales growth. Turnover started to decelerate in the CEE region, which is explained primarily by the slowdown in the growth of Romanian retail trade, essentially due to the base effects.

1.2.2. Employment

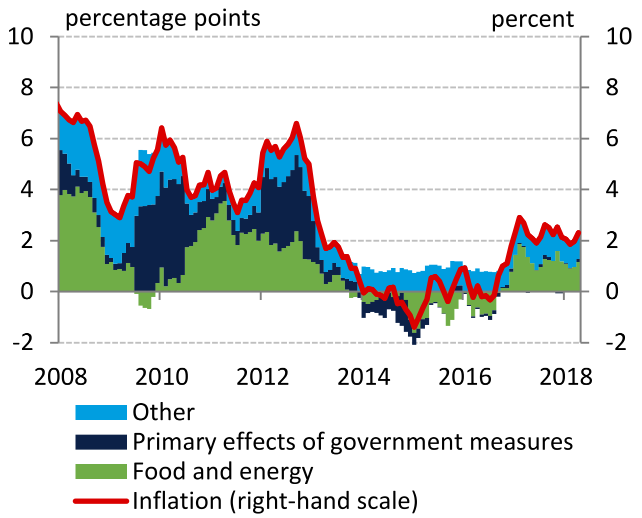
According to the Labour Force Survey (seasonally adjusted) data, **in the first quarter of 2018** the labour force participation rate increased. Total employment rose, contributed to by an increase both in the private and public sector headcounts. Within the private sector, the number of employees continues to rise in manufacturing and construction, while employment in the market service sector decreased moderately. Seasonally adjusted **unemployment rate stood at 3.7 per cent** (Chart 5). The number of public workers and employees working abroad continued to decrease.

In the fourth quarter of 2017, according to the data released by the HCSO related to vacancies, corporate labour demand grew both in manufacturing and the market services sector. 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

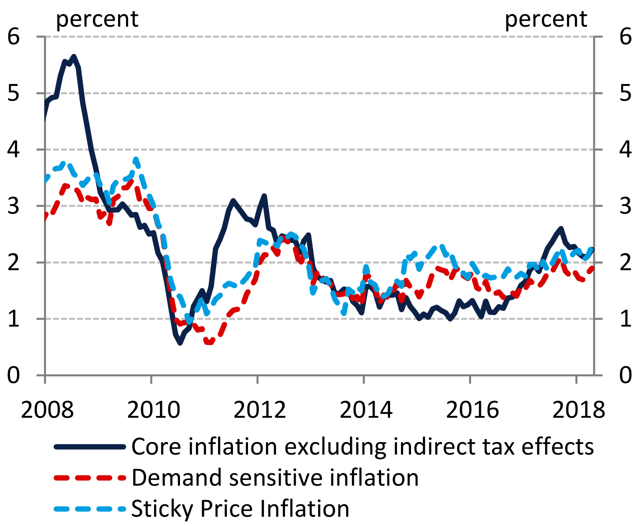
In April 2018, inflation stood at 2.3 per cent, core inflation at 2.5 per cent and core inflation excluding indirect taxes at 2.2 per cent. Underlying inflation indicators moderately rose compared to the previous month, but were still at around 2 percent, below the core inflation. In February 2018, gross average wage in the private sector rose by 10.7 per cent year on year. The continued two-digit wage dynamics was also supported, in addition to the historically tight labour market environment, by the effect of the administrative wage increases at the beginning of the year, included in the wage agreement.

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 February 2018, gross average wage in the private sector rose **by 10.7 percent**, while regular average wage was **up 10.5 per cent year on year.** The dynamics of both the gross and regular average wages decelerated compared to January. The regular average wage decreased more than usual on a monthly basis, while bonus payments were similar to the level observed last February. **The continued two-digit wage increase was also supported, in addition to the historically tight labour market environment, by the effect of the administrative wage increases at the beginning of the year, included in the wage agreement.**

1.3.2. Inflation developments

In April 2018, year-on-year inflation was 2.3 per cent, while core inflation and core inflation excluding indirect taxes stood at 2.5 and 2.2 per cent, respectively (Chart 7). Relative to the previous month, inflation and core inflation rose by 0.3 and 0.1 percentage point, respectively. The increase in inflation was primarily attributable to the rise in fuel prices.

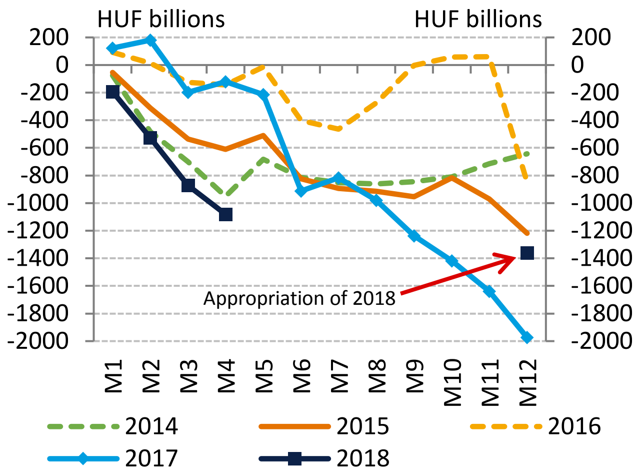
Underlying inflation indicators remained unchanged on the whole compared to the previous month, still being around 2 per cent, below the core inflation (Chart 8). In March 2018, agricultural producer prices rose by 2.5 per cent in annual terms, while the domestic sales prices of the consumer goods sectors increased by 1.8 per cent.

According to the April data, both the inflation and the core inflation data was in line with the forecast in the Inflation Report published in March. According to our actual forecast, in the short run inflation will rise mainly driven by the base effects related to fuels, but it will remain in the lower half of the tolerance band. Inflation will reach the 3 per cent target sustainably in mid-2019.

1.4. Fiscal developments

In April 2018, the central sub-sector of the general government closed with a deficit of HUF 209 billion, and thus the deficit of the first four months amounted to HUF 1,081 billion, representing a higher value than registered in the previous years. The persistent rise in the government deficit is mostly attributable to the budgetary organisations' substantially higher expenditures than last year and to the continued significant payments of EU transfers.

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



Source: Budget Act of 2018, Hungarian State Treasury

In April 2018, the central sub-sector of the general government closed with a deficit of HUF 209 billion, and thus the deficit of the first four months amounted to HUF 1,081 billion, representing a higher value than registered in the previous years (Chart 9). The persistent rise in the government deficit is mostly attributable to the budgetary organisations' substantially higher expenditures than last year and to the continued significant payments of EU transfers.

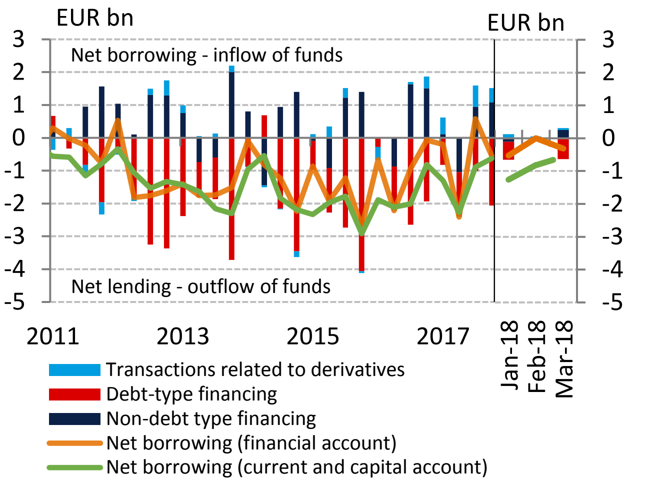
The revenues of the central sub-sector exceeded those recorded last April by HUF 40 billion. Revenues from taxes and contributions rose by HUF 61 billion year on year, mostly due to the increase in VAT and labour tax revenues. Monthly revenues related to EU transfers were still moderate, falling short of the year-on-year values.

The growth in the expenditures of the central sub-sector was primarily attributable to the own expenditures of the central budgetary organisations and institutions, and the rise in the expenditures related to EU transfers. The expenditures related to EU transfers amounted to HUF 206 billion in April 2018, with total payments of HUF 857 billion disbursed in the first four months. Other budgetary expenditures were in line with those of last year.

1.5. External balance developments

In March, net lending of the economy dropped to EUR 560 million; however, it may still be deemed significant. According to the financial account data, decrease in net external debt continued in March, while foreign direct investments rose.

Chart 10: Structure of net lending (unadjusted transactions)



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

In March, net lending of the economy dropped to EUR 560 million; however, it may still be deemed significant. The decline in net lending was mostly attributable to the fall in the current account, and in particular to the decrease in the balance of goods. The absorption of EU transfers – following the outlier of January – developed in March similarly to February. No significant change was observed in the income balance deficit during the month. Despite the decline, the March figure still indicates significant net lending (Chart 10).

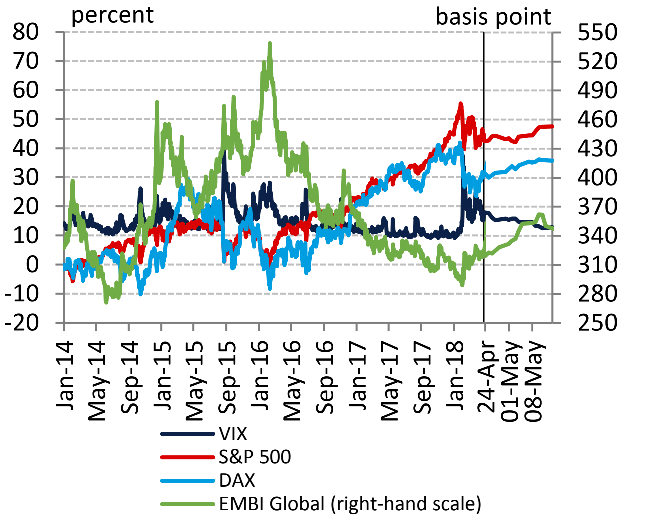
According to the financial account data, decrease in net external debt continued in March, while foreign direct investments rose. In March, the net inflow of foreign direct investments exceeded that observed in the previous months, which was mostly contributed to by reinvested earnings. Based on the monthly transactions, net external debt declined by roughly EUR 630 million. The largest contributor to this was the decline of EUR 820 million, observed in the banking sector. By contrast, the net external debt of the **general government** rose by roughly EUR 300 million, mostly contributed to by the growth in non-residents' government securities holding, related – among others – to the Samurai bond issuance; the impact of this was somewhat offset by the rise in foreign exchange reserves of roughly EUR 500 million. The **corporate sector**'s net external debt declined by EUR 100 million.

2. Financial markets

2.1. International financial markets

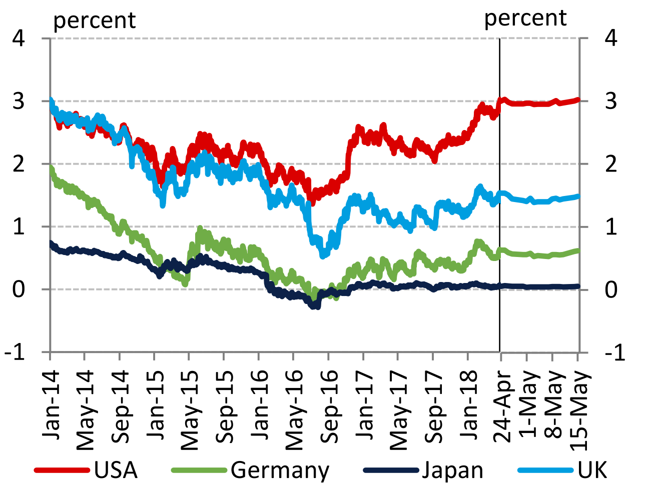
In the period following the previous interest rate decision, global investor sentiment improved in the developed markets, while it deteriorated in the emerging markets. Developed market stock exchanges rose on the whole by about 2-4 per cent, while the emerging markets rose only moderately, by 1.3 per cent. The VIX index, measuring stock exchange volatility, was down close to 13 per cent from the level of roughly 18 per cent. No considerable change was registered in the yields of developed market government securities. In the developing market government securities markets, the 20 basis points rise in the EMBI Global bond spread reflected the strengthening of the aversion to risk in the emerging markets. Foreign exchange markets were dominated by the strengthening of the dollar, which appreciated against the euro by more than 2 per cent; emerging market currencies also depreciated against the dollar to a larger degree. World market price of oil rose by 6-9 per cent, with the main contributors to this being the US sanctions against Iran and the decline in Venezuelan oil extraction.

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



Source: Bloomberg

Chart 12: Yields on developed market long-term bonds



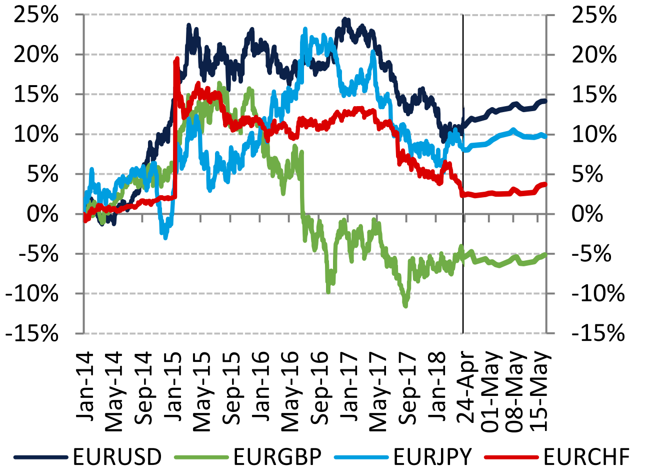
Source: Bloomberg

On the whole, global investor sentiment improved in the developed markets in the past period, while emerging markets were characterised by deterioration in sentiment. Improved sentiment in the developed market was mostly attributable to the easing in the US-China trade war and the favourably developing US flash report season. Geopolitical risks were balanced in the period under review, as the new US sanctions against Iran deteriorated risk appetite, while tensions in the Korean Peninsula eased. The VIX index dropped by 5 percentage points to 13 per cent during the period, while the MOVE index, measuring the volatility of the US bond market, declined by 4 basis points (Chart 11).

In the period under review, developed market stock exchange indices rose to a larger, while those of the emerging markets, to a smaller degree, which was attributable to the tensions observed in the emerging markets. Under improving sentiments, developed market stock exchange indices rose altogether by 2-4 per cents, while the MSCI, measuring emerging market performance, increased only by 1.3 per cent compared to the start of the period. The more moderate emerging market growth was primarily attributable to the outperformance of US assets and the negative risks of the individual emerging countries (e.g. deterioration in investor sentiment related to Turkey and Argentine).

In the developed markets US yields, after a rise of 2 basis points, stabilised over 3 per cent, Japanese and euro area long-term yields stagnated, while ten-year yields in the emerging markets typically rose to a larger degree (Chart 12). Emerging markets were characterised by capital outflows from bond funds, as a result of which long-term yields rose in all emerging regions. The strengthening of aversion to risk was also reflected by the 20 basis point rise in EMBI Global. The largest rise in long-term yields (almost

Chart 13: Developed market FX exchange rates



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

150 basis points) took place in the Turkish government securities market, due to the deterioration in market perception and the S&P rating downgrade.

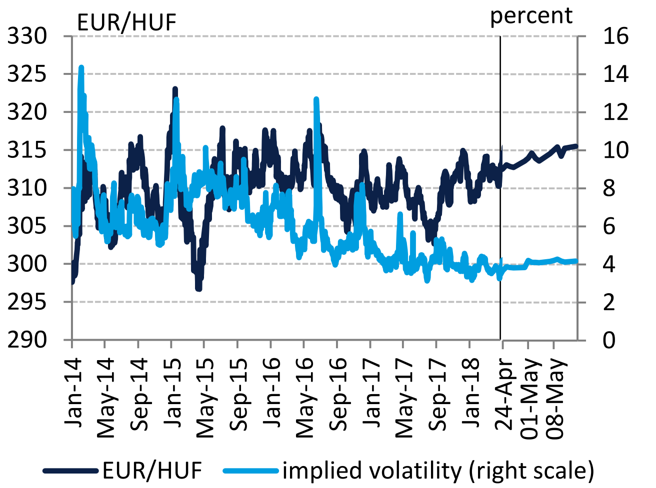
Global foreign exchange market was dominated by the major appreciation of the dollar. The dollar appreciated by 3.6 per cent against the euro (Chart 13) and 1.8 per cent against the Japanese yen. Emerging market currencies also depreciated against the dollar, while the currencies of the CEE region were among those characterised by larger depreciation even among the emerging market currencies.

World market price of oil rose by 6-9 per cent, as a result of which the WTI and Brent oil prices climbed over USD 71 and USD 79, respectively. The rise in the oil prices was mostly attributable to the decision of the US administration to impose sanctions on Iran once again, i.e. to cancel the Iran nuclear deal. In addition, as a result of the internal economic turbulences, oil extraction in Venezuela substantially decreased.

2.2. Developments in domestic money market indicators

Following the April interest rate decision, the forint depreciated against the euro, together with the currencies of the region. The 3-month BUBOR rose by 4 basis points to 7 basis points. All sections of the government securities yield curve shifted upwards, but the yield increase was smaller on the shorter maturities, and thus the curve became steeper. Non-residents' forint government securities holding slightly decreased by the end of the period, and thus their holding once again fell below HUF 3,800 billion, with the ratio of their holding still being around 22 per cent. Hungarian 5-year CDS spread stood at 89 basis points, representing a rise of 3 basis points since the last interest rate decision.

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

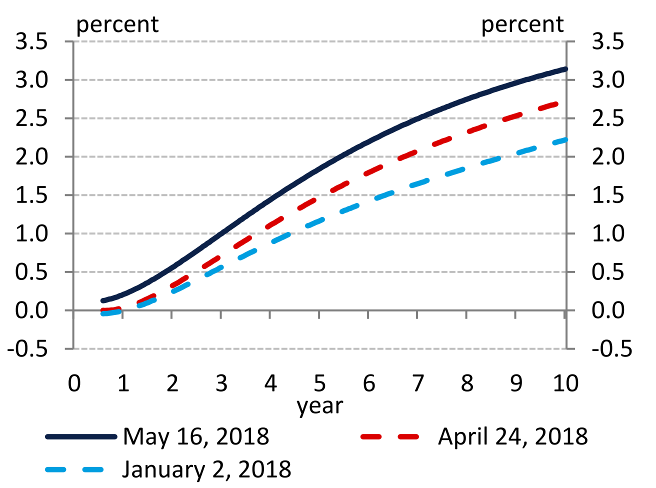


Source: Bloomberg

During the period under review, the forint, in line with the international environment and the currencies of the region, depreciated against the euro. Among the currencies of the region, the Polish zloty depreciated to a higher degree, by 2 per cent, against the euro, the Czech koruna depreciated by 0.4 per cent, while – due to country-specific reasons – the Romanian leu appreciated by 0.4 per cent. In the past month, the forint depreciated against the euro by 1.2 per cent in total, and by the end of the period closed at the level of HUF 316. **Exchange rate volatility moderately rose from a historical low level of below 4 per cent**, and it was 4.2 per cent at the end of the period (Chart 14).

The 3-month BUBOR, relevant for the monetary policy transmission, rose slightly, by 4 basis points, and thus it stood at 0.07 per cent at the end of the period. **The 3-10 year section of the government yield curve shifted upward by 30-40 basis points,** while the 1-3 year yields rose by 20-30 basis points, thereby making the yield curve steeper (Chart 15).

Chart 15: Shifts in the spot government yield curve



Source: MNB, Reuters

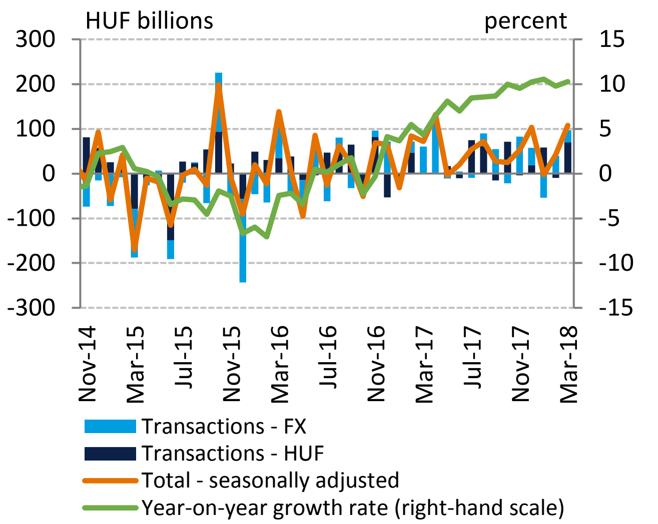
Forint government securities auctions were characterised by strong demand, and thus the Government Debt Management Agency accepted more than the announced quantity for almost all maturities. In the case of the 3-month auctions, the accepted quantity was raised on all occasions, and the average auction yield rose by one basis point on each week. The bid-to-cover ratio at the 12-month Treasury bill auction was weaker than in the case of the other papers, and thus the accepted quantity was not raised at these auctions, and the average auction yield rose by 6 basis points to 0.12 per cent. Demand was outstanding for the 3-, 5- and 10-year bonds, and thus, as a result of the two- or three-fold excess demand, the Government Debt Management Agency in all cases accepted higher quantity than announced. In line with the secondary market processes, the average yields at the auctions of the 3- and 5-year securities and those of the 10-year securities rose by 15 and 30 basis points, respectively, and thus the average yields of the last government bond auctions for the three-year, five-year and ten-year maturities was 0.9, 1.42 and 2.71 per cent, respectively.

The stock of Hungarian forint-denominated government securities held by non-residents fell by HUF 58 billion in the period, and thus it amounted to roughly HUF 3,735 billion. The share of non-residents compared to the total government securities outstanding portfolio remained at around 22 per cent, the level observed at the end of April. The 5-year Hungarian CDS spread rose by 3 basis points and finally closed the period at 89 basis points.

3. Trends in lending

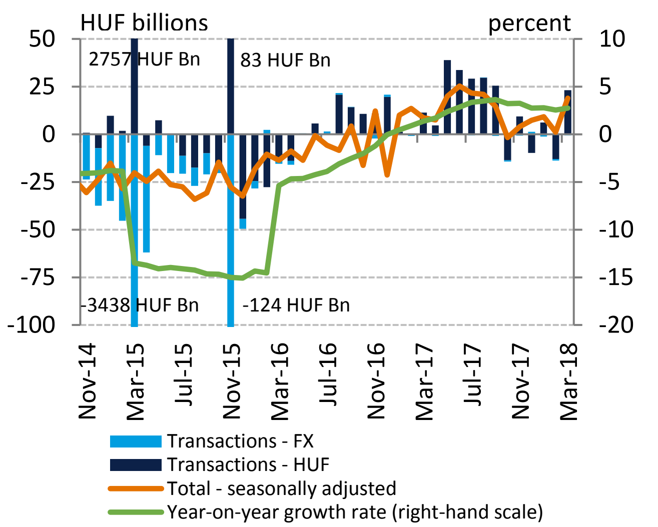
In March, the outstanding corporate loans of credit institutions rose by HUF 97 billion due to transactions, which is equivalent to an increase of HUF 108 billion on a seasonally adjusted basis. The outstanding loans of credit institutions to households rose by HUF 23 billion as a result of transactions, which represents a growth of HUF 19 billion on a seasonally adjusted basis. Thus the annual growth in outstanding lending amounted to 2.7 per cent in March 2018. The smoothed interest rate spread of forint corporate loans rose by 10 basis points to 1.5 percentage points in March. The average smoothed interest rate spread on variable rate housing loans calculated on the basis of the annual percentage rate (APR) dropped by 30 basis points compared to September 2017, to 3.05 percentage points.

Chart 16: Net borrowing by non-financial corporations



Source: MNB

Chart 17: Net borrowing by households

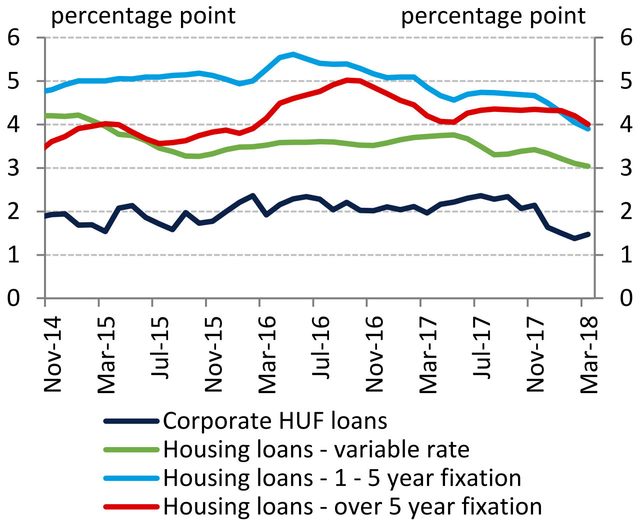


Source: MNB

In March, outstanding corporate loans of credit institutions rose by HUF 97 billion due to transactions, which is equivalent to an increase of HUF 108 billion on a seasonally adjusted basis (Chart 16). In a breakdown by currency, forint loans and foreign currency loans increased by HUF 70 billion and HUF 27 billion, respectively. In March 2018, corporate lending rose by 10.3 per cent in annual terms, representing a value close to the lower bound of the band of 10-15 per cent, deemed desirable by the MNB on its new credit convergence path. Excluding money market transactions, the volume of new loans amounted to HUF 243 billion during the month; the value of the money market transactions was HUF 83 billion. Accordingly, the gross amount of new loans in March was up 26 per cent in annual terms.

The outstanding loans of credit institutions to households rose by HUF 23 billion as a result of transactions, which represents a growth of HUF 19 billion on a seasonally adjusted basis. Thus, the annual growth in outstanding lending amounted to 2.7 per cent in March 2018 (Chart 17). The value of new contracts concluded during the month was HUF 115 billion, and thus in annual terms it registered a growth of 37 per cent. As regards the individual sub-segments, the volume of new housing loans and personal loans rose by 36 and 50 per cent, respectively. During the month, Certified Consumer-friendly Housing Loans were disbursed in the amount of HUF 18 billion, accounting for 50 per cent of the fixed-rate housing loans, while the total value of contracts concluded since September amounts to HUF 66 billion.

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 10 basis points to 1.5 percentage points in March (Chart 18). The spread on small-amount market loans – typically taken by SMEs – exceeds the average of the other Visegrád countries by 90 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 30 basis points compared to September 2017, to 3.05 percentage points. In the case of loans the interest rate of which is fixed for 5 years at the most, this value dropped by 75 basis points to 3.9 percentage points, while in the case of loans fixed for more than 5 years, it fell by 35 basis points to 4 percentage points. The problem of high spreads affects primarily the market of long-term fixed-rate transactions.