MACROECONOMIC AND FINANCIAL MARKET DEVELOPMENTS

BACKGROUND MATERIAL

TO THE ABRIDGED MINUTES OF THE

MONETARY COUNCIL MEETING

OF 24 APRIL 2018

APRIL

2018

Time of publication: 2 p.m. on 9 May 2018

The background material 'Macroeconomic and financial market developments' is based on information available until 20 April 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

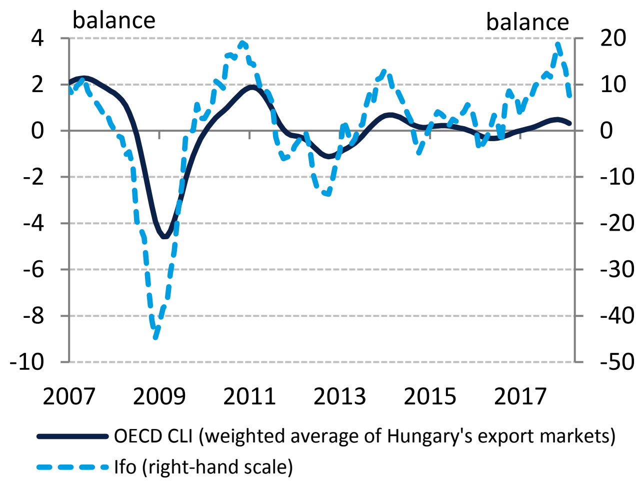
Table of contents 3
1. Macroeconomic developments 4
1.1. Global macroeconomic environment 4
1.2. Domestic real economy developments 6
1.2.1. Economic growth 6
1.2.2. Employment 7
1.3. Inflation and wages 8
1.3.1. Wage setting 8
1.3.2. Inflation developments 8
1.5. Fiscal developments 9
1.5. External balance developments 10
2. Financial markets 11
2.1. International financial markets 11
2.2. Developments in domestic money market indicators 13
3. Trends in lending 15

1. Macroeconomic developments

1.1. Global macroeconomic environment

In the fourth quarter of 2017 international economic activity developed positively. In addition to the economic expansion recorded in the euro area, the GDP growth registered at year-end in the United States changed upwards compared to the previous data dissemination. According to the expectations, 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



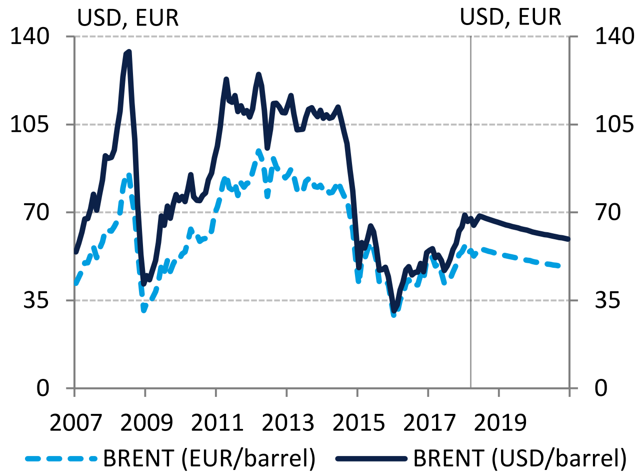
Source: OECD, Ifo

Global economy growth developed positively in the fourth quarter of 2017 as well. In addition to the continued economic growth in the euro area, the GDP growth of the United States recorded at the end of the year – based on the revised data dissemination – exceeded the previously reported figure. **According to the expectations, 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. **The import tariffs announced by the US administration may exert negative impact on the global economy** due to the dominance of the United States within global imports. In addition, the slowdown of the Chinese economy and macroprudential risks surrounding the country's growth, may be identified as downside risks. **The infrastructure investment programme of the US administration and the cut of corporate income tax can be identified as upside risks**, which substantially improved the United States' economic growth prospects. As regards the growth rate of European GDP, the political uncertainties prevailing after the elections in Italy, the exit of the United Kingdom from the EU and the lack of clarity concerning the circumstances of the process, still carry negative risks.

The economy of Germany, Hungary's most important trading partner, grew materially in the fourth quarter of 2017, contributed to by improving export performance, growing investments of the public sector and stable household consumption. At the beginning of 2018, German industrial production and new industrial orders rose moderately, also contributed to by the strong base of last year. The correction of the Ifo expectations, capturing the outlooks of the German industry, continued in parallel with the temporary slowdown of the German industrial processes (Chart 1).

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 material rise in consumption, supported by the improving labour market conditions, increasing real

Chart 2: Brent crude oil world market prices



Source: Bloomberg

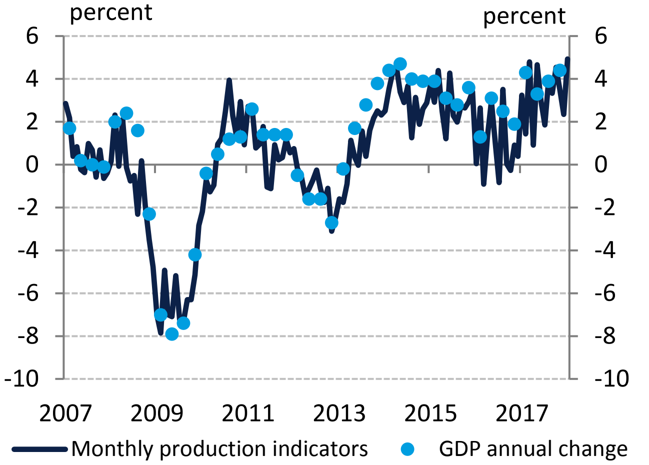
income resulting from the low inflation environment and high wage dynamics, and favourable household confidence. The continued growth in consumption is also supported by the retail sales volume in the region; in addition, the rise in the industrial production of the region also continued in recent months.

No substantial change took place in the global inflationary environment; underlying inflation in the euro area continues to develop moderately. In March, euro area inflation increased, primarily reflecting the rise in the food prices (unprocessed and processed), while the price of industrial goods and market services continued to develop moderately. Oil world market price in March – under significant volatility – was around USD 64-75 (Chart 2). The volatility of oil prices is attributable to the combined effect of the geopolitical tensions in the Middle East, the record high US output and the larger than expected growth in oil reserves. The price of industrial commodities moderately decreased, while the world market price of unprocessed food rose in March.

1.2. Domestic real economy developments

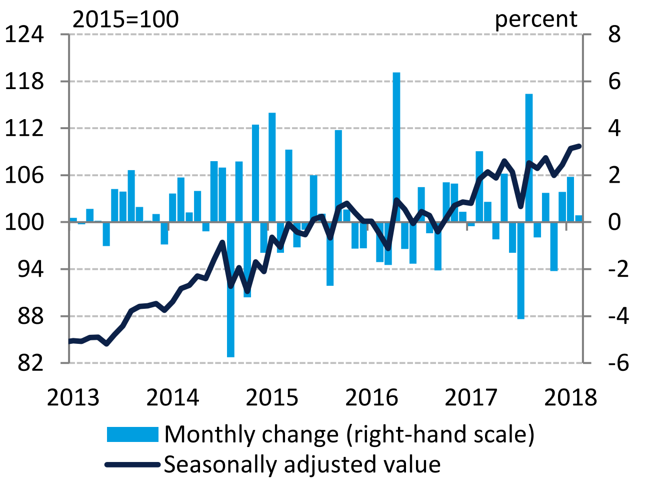
In 2017 Q4 Hungary's GDP grew by 4.4 percent year on year. Vigorous economic growth may continue in the first quarter of 2018 as well, also evidenced by the available monthly production indicators. In the period of December 2017 - February 2018 the unemployment rate stood at 3.8 percent. The tightness 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

Chart 4: Development in industrial production



Source: MNB calculation based on HCSO data

1.2.1. Economic growth

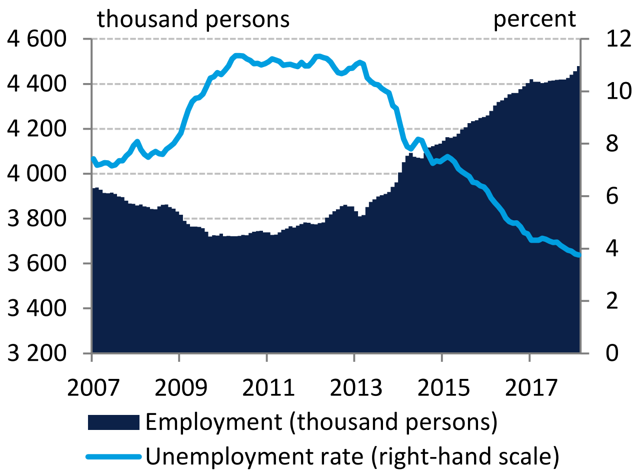
According to the HCSO's data release, **in the fourth quarter of 2017, Hungary's gross domestic product grew at a rate of 4.4 percent** year on year, and thus whole-year economic growth amounted to 4.0 percent. Based on the seasonally adjusted data, **Hungary's GDP rose by 1.3 percent quarter on quarter.** On the expenditure side, **consumption** was the primary contributor to economic growth, in addition to investments, while on the output side growth was supported by **construction** and the performance of **industry**, in addition to **services** (Charts 3 and 4).

Vigorous growth in GDP may continue in the first quarter of 2018 as well, also evidenced by the available monthly production indicators (Chart 3, Chart 4). Retail sales volume rose dynamically in the first months of the year, accompanied by substantial growth in construction output. The growth in industrial production continued in recent months.

In February 2018**, industrial output was up 4.1 percent** year on year, while production **rose by 0.5 percent compared to the previous month** (Chart 4). **The performance of the majority of the manufacturing subsectors rose year on year.** The output of vehicle manufacturing, representing a considerable weight, slightly increased, supported by the manufacture of vehicle parts; the manufacture of transport equipment declined in February. The substantial growth in chemical industry was supported in February by drug, rubber and plastic manufacturing. In addition, material growth in metal industry and stagnation of the engineering sector could be observed. As a result of the buoyant domestic sales and declining exports**, industrial sales** stagnated compared to the previous month. **On the whole, forward-looking indicators show a mixed picture** with regard to the outlooks of the Hungarian industry. The business sentiment of Hungary's key trading partners – particularly of Germany – moderately deteriorated, while of the indicators applicable to the domestic industry, the ESI and manufacturing BMI also declined, but still remained at positive levels.

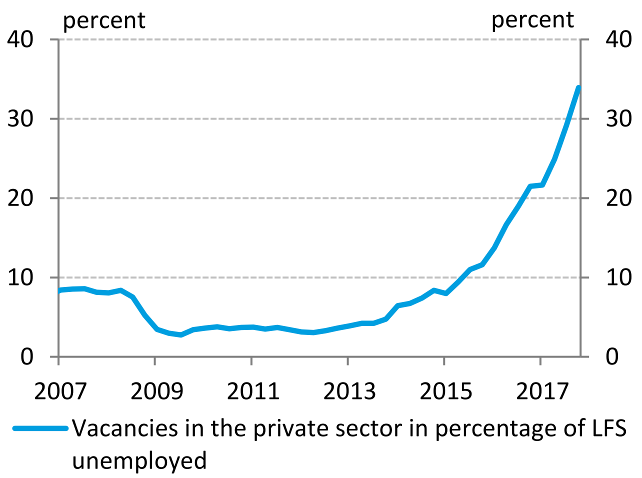
In line with the developments in industrial production, expressed in euro terms, **the value of exports and imports was up 5 and 4.5 percent, respectively,** year on year in

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

February 2018, and thus trade surplus rose by EUR 72 million. In January 2018, the terms of trade continued to improve year on year. As regards the developments in the terms of trade, the relative price change of chemical goods, food, machinery and transport equipment was able to offset the terms of trade deteriorating effect of the change in the relative price of mineral fuels and processed goods.

In February 2018, **the volume of construction output was up 26.0 percent** year on year, while **output decreased by 5.0 percent compared to the previous month**. Output rose in both of the main construction groups (construction of buildings and construction of other structures). In line with the construction phase of the industrial capacity expansions and the construction of residential buildings, the construction of buildings rose at a more moderate pace compared to the growth rate observed last year. Owing to the public infrastructure developments, the construction of other buildings continued to rise dynamically. 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. Looking ahead, construction is expected to continue its positive performance.

In February, according to the preliminary data, **retail sales volume was up 6.5 percent year on year.** In the past 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, contributed to primarily by the slowdown in the growth of Romanian retail trade, essentially due to the base effects.

1.2.2. Employment

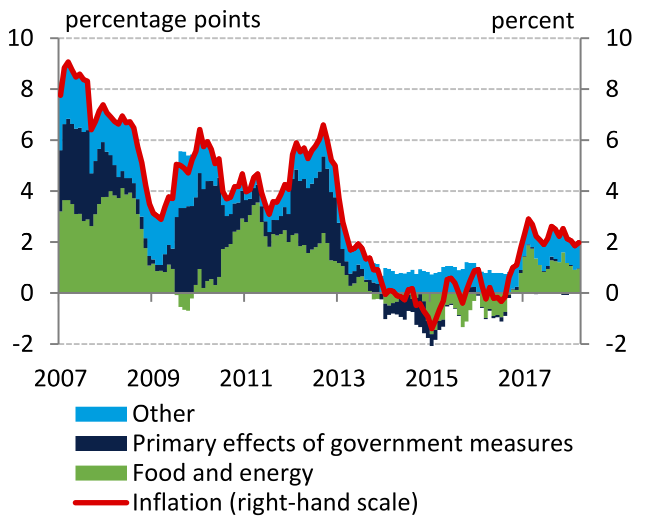
According to the Labour Force Survey data, in **December 2017 - February 2018** the labour force participation rate and employment (with and without public workers) materially rose, while unemployment remained practically unchanged. **The unemployment rate stood at 3.8 percent** (Chart 5). The number 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

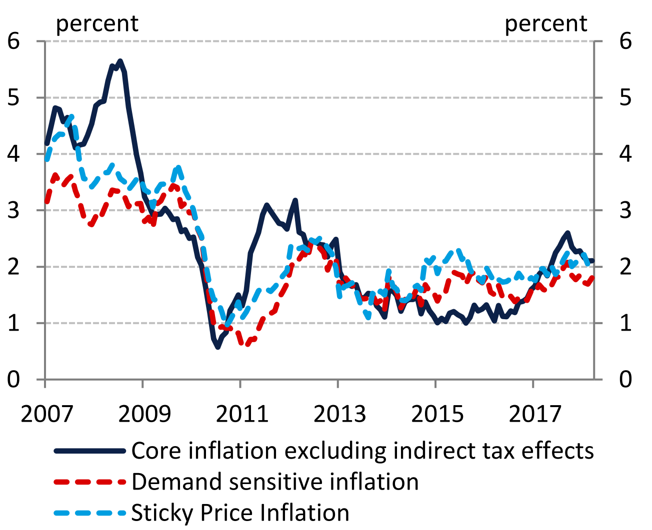
In March 2018, inflation stood at 2.0 percent, core inflation at 2.4 percent and core inflation excluding indirect taxes at 2.1 percent. Underlying inflation indicators were broadly unchanged, at around 2 percent, below the core inflation. In February 2018, gross average wage in the private sector rose by 10.7 percent year on year. The continued vigorous 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 percent year on year. **The annual dynamics of both the gross and regular average wages decelerated compared to January**, but still remained at a high level similar to that of last year. The regular average wage decreased more strongly on a monthly basis compared to last February, while bonus payments corresponded to the level observed last February. **The continued vigorous 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.

1.3.2. Inflation developments

In March 2018, year-on-year inflation was 2.0 percent, while core inflation and core inflation excluding indirect taxes stood at 2.4 and 2.1 percent, respectively (Chart 7). Inflation rose by 0.1 percentage point, while core inflation remained unchanged relative to the previous month. The increase in inflation is primarily attributable to the rise in the price of unprocessed food.

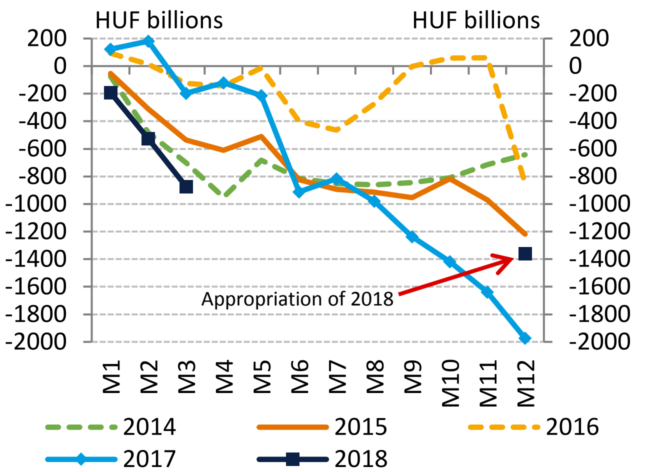
Underlying inflation indicators remained unchanged on the whole compared to February, still being around 2 percent, below the core inflation (Chart 8). In February 2018, agricultural producer prices rose by 4.9 percent in annual terms, while the domestic sales prices of the consumer goods sectors increased by 1.8 percent.

According to our current 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 percent target sustainably in mid-2019.

1.5. Fiscal developments

In March 2018, the central sub-sector of the general government closed with a deficit of HUF 345 billion, while the first quarter cumulative deficit amounted to HUF 872 billion, being the highest value registered in the last 5 years.

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



Source: Budget Act of 2018, Hungarian State Treasury

In March 2018, the central sub-sector of the general government closed with a deficit of HUF 345 billion, while the first quarter cumulative deficit amounted to HUF 872 billion, being the highest value registered in the last 5 years (Chart 9). The substantial deficit was caused primarily by the continued advance payments related to EU transfers and the higher expenditure of the budgetary organisations.

The **revenues of the central sub-sector** in March 2018 were up by HUF 286 billion year on year. This is mostly attributable to the higher volume of VAT revenues, resulting from the rearrangement of reimbursements between the months. The higher revenue was also contributed to by the higher value of the revenues related to EU transfers compared to last March, which was partly offset by the realisation of other revenues in a lower amount.

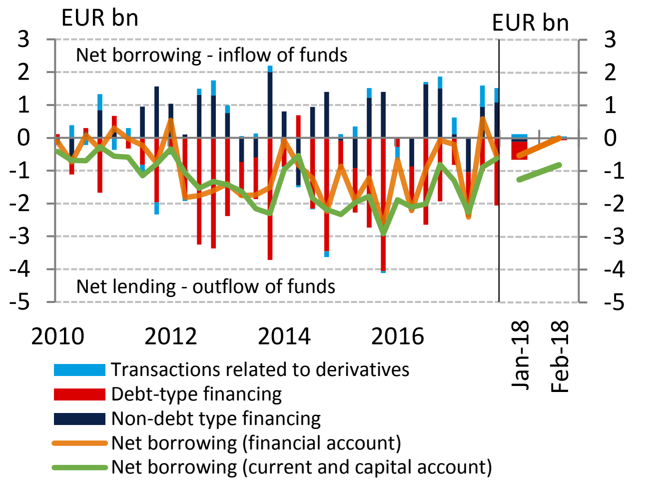
The **expenditures of the central sub-sector** were up by HUF 253 billion year on year, which was mostly caused by the substantial rise in the net own expenditures of the central budgetary organisations and chapters. In addition, expenses related to EU transfers also rose materially compared to last March.

According to the EDP report published by HCSO on 4 April, **the general government deficit as a percent of GDP was 2.0 percent in 2017. At the end of 2017, general government debt, including the debt of Eximbank was 73.6 percent, representing a decline of 2.4 percentage points compared to the figure registered at the end of 2016**. The Hungarian statistical authorities allocated Eximbank in the EDP report to the general government sector, and thus the debt of Eximbank was also taken into consideration in the government debt. The debt without Eximbank amounted to 71.7 percent of GDP.

1.5. External balance developments

In February, net lending of the economy dropped to EUR 820 million; however, it is still high. According to the financial account data, net external debt slightly decreased further, while foreign direct investments continued to rise moderately.

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 February, net lending of the economy dropped to EUR 820 million; however, it is still high. The decline in net lending can be attributed to the fall in the transfer balance surplus (Chart 10). While in January the absorption of EU transfers was outstandingly high, the value thereof in February declined close to EUR 400 million, thereby significantly contributing to the decrease in net lending. The goods balance surplus moderately rose, while the income balance deficit on the whole remained unchanged during the month.

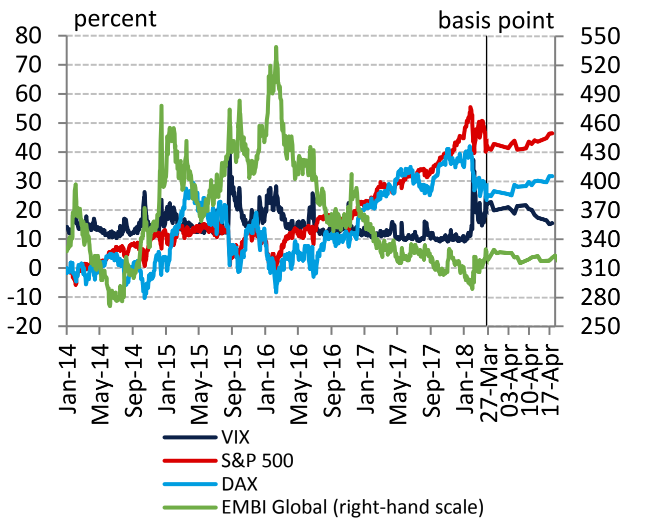
According to the financial account data, net external debt slightly decreased further, while foreign direct investments continued to rise moderately. In February, foreign direct investments continued to rise moderately, which was primarily attributable to the reinvested earnings. Net external debt of the banking sector dropped by roughly EUR 560 million, which was partly the result of the decline in the central bank's fine-tuning swap portfolio and the decrease in the banks' external debt. On the other hand, the decline in the outstanding fine-tuning swap contracts increased the external debt of the government, which rose by roughly EUR 440 million during the month. The corporate sector's external debt moderately increased, mostly due to the commercial loan debts.

2. Financial markets

2.1. International financial markets

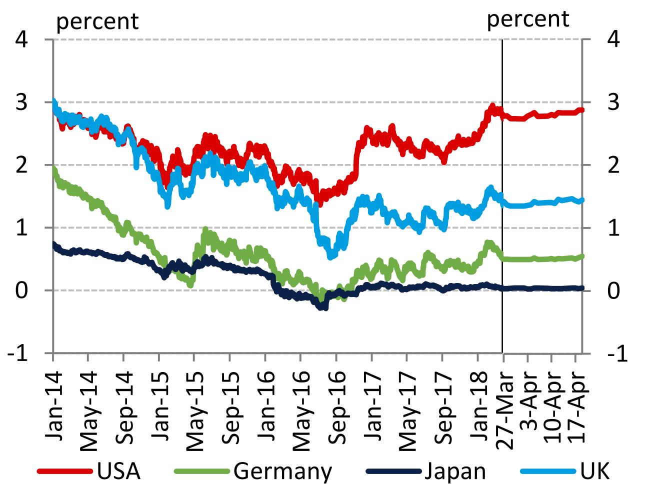
Global investor sentiment improved in the period following the previous interest rate decision, albeit it was volatile. Risk appetite was mostly influenced by the developments related to commercial policy measures of the United States and China. Developed market stock exchanges rose on the whole by about 3-5 percent, while the emerging and Asian markets dropped moderately, by 0.5-1 percent. As regards the developed market government securities' yield, the US and euro area long-term yields rose by 10 and 5 basis points, respectively. In the emerging markets, in parallel with the moderate decline in the EMBI Global bond spread, the long-term yields in the region decreased in nominal terms as well. In the foreign exchange markets the dollar/euro exchange rate continued to fluctuate around 1.23, while the world market price of oil rose by 6 percent.

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

Global investor sentiment in the past period improved on the whole, but at the same time it was volatile. Improved sentiment was mostly attributable to the easing in the US-China relations, which mitigated anxieties related to an international trade war. At the beginning of the period, which was still characterised by tensions in communication, the VIX index was around 20 percent, and by mid-April it gradually declined to 15 percent as a result of the easing (Chart 11).

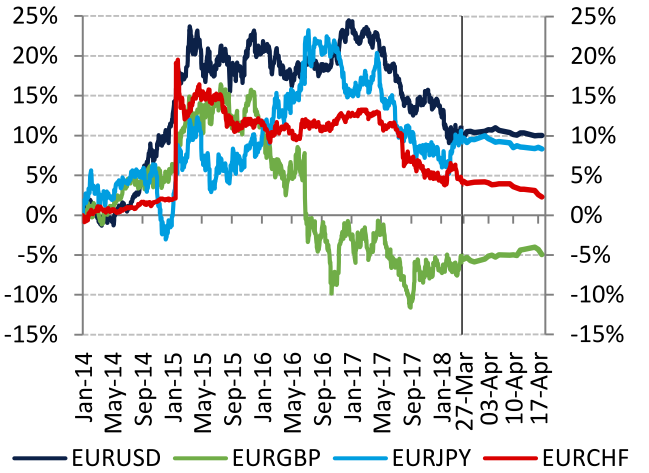
Developed market stock exchange indices rose, while the emerging market ones moderately decreased in the past month. The MSCI indices, measuring the performance of the emerging and Asian markets, declined by 0.5-1 percent compared to the start of the period. The minor decline in the emerging market index may have been attributable, in addition to the investors' concerns related to the protectionist economic policy, to the geopolitical risks arising from the sanctions introduced against Russia.

In the developed markets, long-term US and euro area yields rose by 10 and 5 basis points, respectively, while within the emerging markets in the CEE region ten-year yields rather tended to decrease (Chart 12). Emerging markets showed a mixed picture, as yields in the CEE region declined, while the Russian long-term yield rose by 30-40 basis points. The rise in Russian yields is essentially attributable to the intensified conflicts with the developed regions and the introduction of the US sanctions.

Fed policy-makers continue to project three interest rate hikes for this year, in total. Market participants price the next interest rate hike to June and the third one to autumn. In the case of ECB, the market pricing still projects no interest rate hike for 2018.

For the most part of the period, the euro/dollar exchange rate fluctuated close the level of 1.23 (Chart 13). The euro/Swiss franc exchange rate depreciated to the level of

Chart 13: Developed market FX exchange rates



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

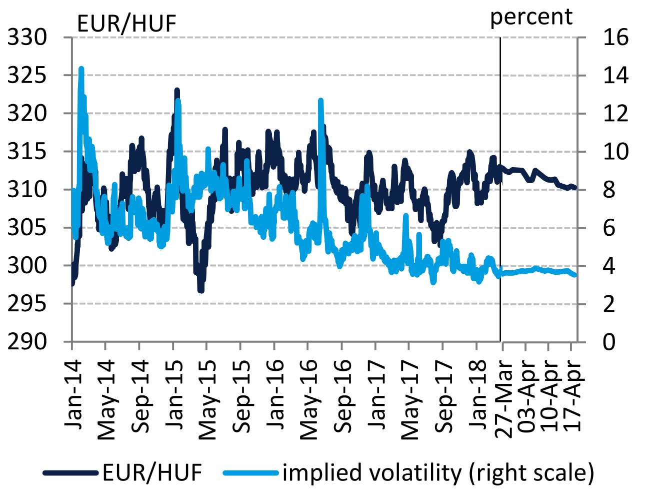
1.2. The exchange rate of the British pound against the euro essentially fluctuated in a narrow band during the period.

World market price of crude oil rose by 6 percent. The rise in the oil price was mostly attributable to the geopolitical tensions, accompanied by press information related to Saudi Arabia, according to which it would regard USD 100 as the ideal oil price instead of USD 80.

2.2. Developments in domestic money market indicators

Following the March interest rate decision, the forint slightly appreciated against the euro, together with the currencies of the region. The 3-month BUBOR is still close to zero. Non-residents' forint government securities holding rose substantially, above 3,800 billion by the end of the period, and thus their share exceeded 22 percent. Hungarian 5-year CDS spread, in line with the regional and global trends, remained broadly unchanged.

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

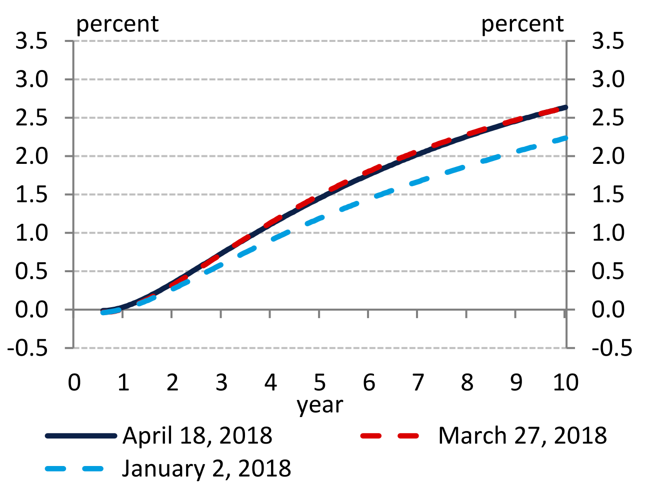


Source: Bloomberg

During the period under review, the forint, together with the currencies of the region, moderately appreciated against the euro. Among the currencies of the region, the Polish zloty appreciated to a higher degree than the forint, by 1.15 percent, while the Czech koruna appreciated by roughly 0.6 percent and the Romanian leu remained essentially unchanged. In the past month, the forint steadily appreciated against the euro, by 0.8 percent in total, and closed the period near the level of HUF 310. Exchange rate volatility remained historically low, below 4 percent (Chart 14).

The 3-month BUBOR, relevant for the monetary policy transmission, has not changed and still stands at 0.03 percent. **The 3-6 year section of the government yield curve slightly shifted downward, by 4 basis points,** while the maturities of 1-3 years were characterised by an increase of similar degree (Chart 15). The spreads slightly decreases compared to the German government securities, while they somewhat rose relative to the region, compared to the previous month.

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 higher than the announced quantity for almost all maturities. In the case of the 3-month auctions, the accepted quantity was raised on two of the three occasions, and the average yield at the last auction was 2 basis points. The bid-to-cover ratio at the 12-month Treasury bill auction was roughly 2.5-fold, and thus the National Debt Management Agency accepted HUF 45 billion instead of the announced HUF 30 billion. The auctions of longer-term government bonds also brought similar results: 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 accepted higher quantity than announced. The average yield of the last government bond auctions for the three-year, five-year and ten-year maturities was 0.75, 1.26 and 2.37 percent, respectively.

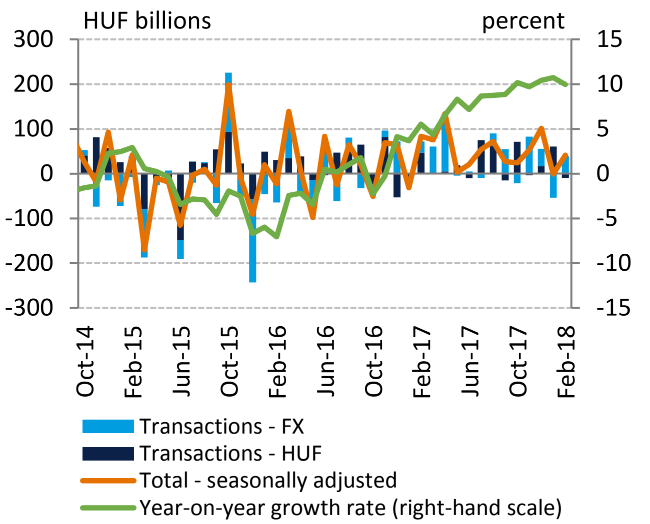
The stock of Hungarian forint-denominated government securities held by non-residents rose substantially, by roughly HUF 220 billion, in the period, and thus at present their holdings amount to roughly HUF 3,809 billion.

Accordingly, the share of non-residents compared to the total outstanding portfolio rose to 22.4 percent compared to 21.4 percent at the end of March. The 5-year Hungarian CDS spread, in line with the regional and global trends, essentially remained unchanged and at the end of the period it stood at 86 basis points.

3. Trends in lending

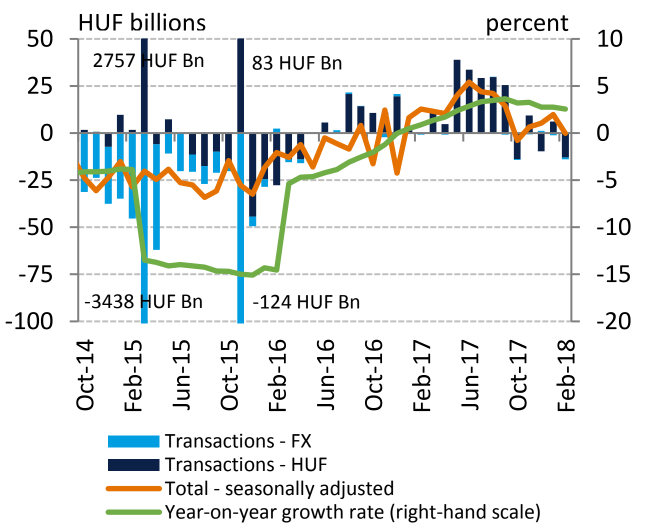
In February, the outstanding corporate loans of credit institutions rose by HUF 30 billion due to transactions, which is equivalent to a decrease of HUF 41 billion on a seasonally adjusted basis. The outstanding loans of credit institutions to households declined by HUF 14 billion as a result of transactions, which represents no change on a seasonally adjusted basis. Thus the annual growth in outstanding lending amounted to 2.5 percent In February 2018. The smoothed interest rate spread of forint corporate loans dropped by 10 basis points to 1.4 percentage points in February. The average smoothed interest rate spread on variable rate housing loans calculated on the basis of the annual percentage rate (APR) dropped by 20 basis points compared to September 2017, to 3.1 percentage points.

Chart 16: Net borrowing by non-financial corporations



Source: MNB

Chart 17: Net borrowing by households

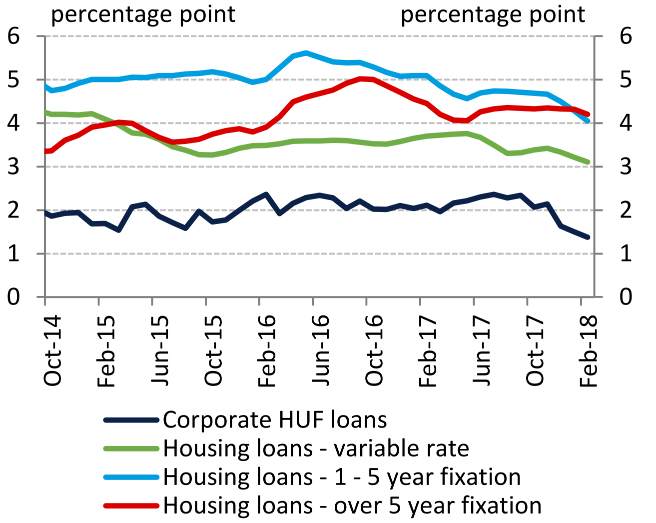


Source: MNB

In February, outstanding corporate loans of credit institutions rose by HUF 30 billion due to transactions, which is equivalent to a decrease of HUF 41 billion on a seasonally adjusted basis (Chart 16). In a breakdown by foreign currency, forint loans decreased by HUF 10 billion, while foreign currency loans increased by HUF 40 billion. In February 2018, corporate lending rose by 9.9 percent in annual terms. Excluding money market transactions, the volume of new loans amounted to HUF 136 billion during the month; the value of the money market transactions was HUF 68 billion. Accordingly, the gross amount of new loans in February was up 37 percent in annual terms.

The outstanding loans of credit institutions to households declined by HUF 14 billion as a result of transactions, which represents no change on a seasonally adjusted basis. Thus, the annual growth in outstanding lending amounted to 2.5 percent in February 2018 (Chart 17). The value of new contracts concluded during the month was HUF 100 billion, and thus in annual terms it registered a growth of 39 percent. As regards the individual sub-segments, the volume of new housing loans and personal loans rose by 38 and 51 percent, respectively. During the month, Certified Consumer-friendly Housing Loans were disbursed in the amount of HUF 12 billion, accounting for 43 percent of the fixed-rate housing loans, while the total value of contracts concluded since September amounts to HUF 48 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 dropped by 10 basis points to 1.4 percentage points in February (Chart 18). However, the spread on small-amount market loans – typically taken by SMEs – exceeds the average of the other Visegrád countries by 80 basis points.

The average smoothed interest rate spread on variable rate housing loans calculated on the basis of the annual percentage rate (APR) dropped by 20 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 70 basis points to 4 percentage points, while in the case of loans fixed for more than 5 years, it fell by 15 basis points to 4.2 percentage points. The problem of high spreads affects primarily the market of long-term fixed-rate transactions.