MACROECONOMIC AND FINANCIAL MARKET DEVELOPMENTS

BACKGROUND MATERIAL

TO THE ABRIDGED MINUTES OF THE

MONETARY COUNCIL MEETING

OF 27 FEBRUARY 2018

FEBRUARY

2018

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The background material 'Macroeconomic and financial market developments' is based on information available until 26 February 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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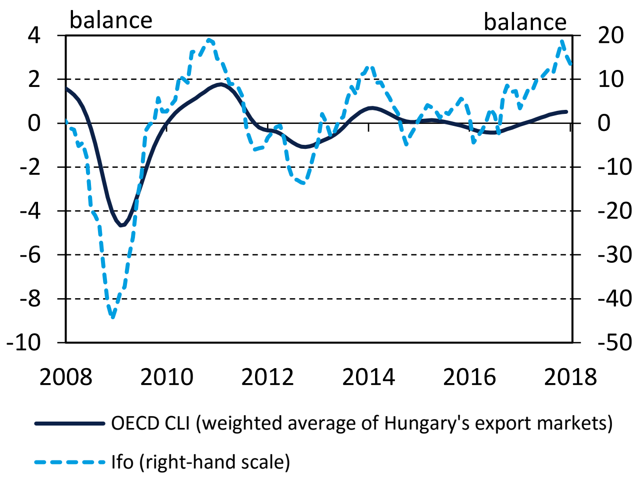
1. MACROECONOMIC DEVELOPMENTS

1.1. Global macroeconomic environment

In the fourth quarter of 2017 international economic activity developed positively. In addition to the euro area, the economy of the United States also continued to expand in the past quarter. The growth in the output of Germany, Hungary's most important trading partner, exceeded the expectations, also evidenced by the German industrial production being close to its historic high in December. The dynamic economic growth of the Eastern and Central European region, appearing to be the growth centre of the European Union, was primarily supported by domestic demand in the past period.

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

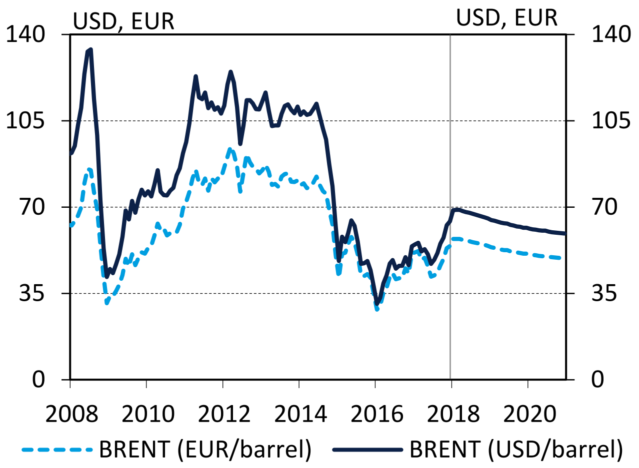


Source: OECD, Ifo

International economic activity developed positively in the fourth quarter of 2017 as well. In addition to the continued growth in the euro area, the US economy expanded in the past quarter at a rate outstripping the economists' and market expectations. According to the expectations, **favourable European economic activity** may continue in the coming period as well, also supported, in addition to the industrial production data from the past months and the improving business confidence, by the persistent rise in the forward-looking business survey indicators. Despite the improving financial conditions and strong business confidence seen in the past year, global growth prospects are still surrounded by uncertainty. **The infrastructure investment programme of the Trump administration can be identified as an upside risk**, since upon the approval of the development package a higher growth rate may be expected in the developed countries. In our previous forecast the outcome of the German elections represented a risk on growth, **but the successful closing of the German coalition talks has calmed down market participants.** The slowdown of the Chinese economy, and the fact that the country's growth is surrounded by macroprudential risks, may be identified as downside risks. **The exit of the United Kingdom from the EU and the uncertainty related to the Brexit talks** still carry negative risk in respect of the European growth rate.

The economy of Germany, Hungary's most important trading partner, grew materially in the fourth quarter. Steadily rising household consumption as a result of the favourable labour market processes, growing investments of the corporate sector and the improving export performance also supported the growth of the German economy. In the past period, the growth of German industrial production continued, contributed to by a wide range of subsectors. In addition to the continued rise in new industrial orders in Germany, the Ifo index, capturing the outlooks of the German industry, also developed

Chart 2: Brent crude oil world market prices



Source: Bloomberg

favourably in the past months (Chart 1).

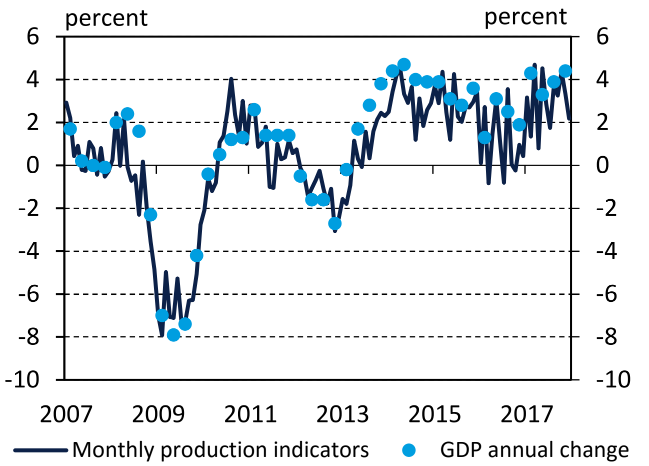
Buoyant growth in the countries of the region is still primarily supported by the dynamically increasing domestic demand. All countries of the region registered a material rise in consumption, supported by the improving labour market conditions, increasing real income resulting from the low inflation environment and high wage dynamics, and favourable household confidence. In addition, the growth in investments also continued.

No substantial change took place in the global inflationary environment; underlying inflation in the euro area continue to develop moderately. In January, euro area inflation moderately decreased, primarily reflecting the fall in the price of unprocessed food and energy. Oil world market price in January was close to USD 70, followed by a gradual decline from early February to USD 62-63 (Chart 2). The decline in the prices was caused by the record high global oil extraction – mostly attributable to the soar in the US output – and the to the closing of the investors' net long position (market adjustment). World market prices of industrial commodities and unprocessed food also rose in January.

1.2. Domestic real economy developments

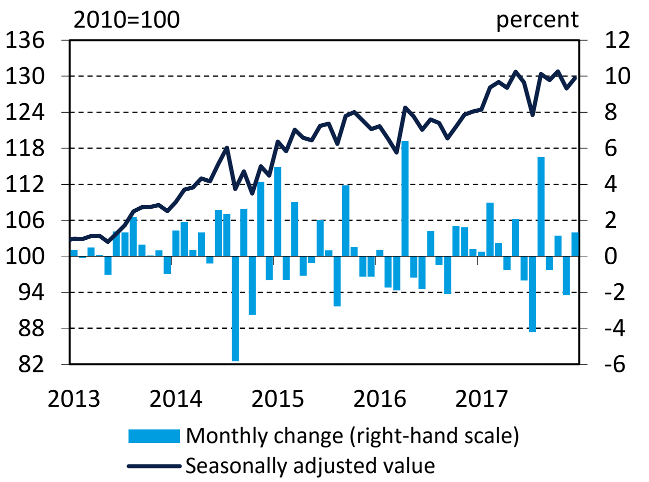
According to the HCSO's data release, in 2017 Q4 Hungary's GDP grew by 4.4 per cent year on year. The buoyant economic growth is also evidenced by the available monthly production indicators. Unemployment rate dropped to 3.8 per cent at the end of last year. Private sector employment continued to rise, while within the general government a further fall was recorded in the number of public workers.

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

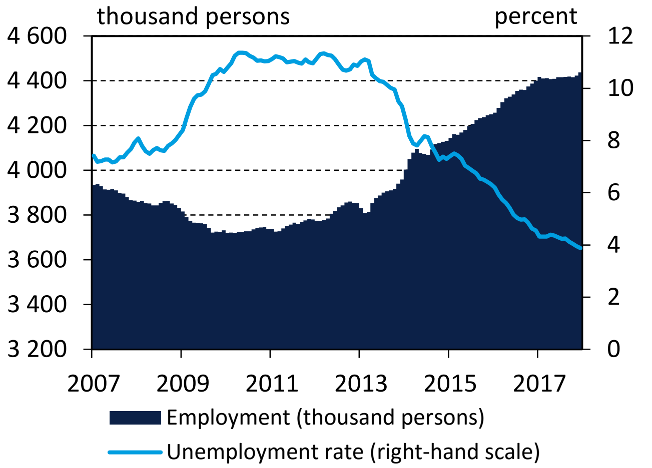
1.2.1. Economic growth

According to the HCSO's preliminary data release, **in the fourth quarter of 2017 Hungary's gross domestic product grew at a rate of 4.4 per cent** year on year, thus the economic growth recorded for the whole year amounted to 4.0 per cent. Based on the seasonally adjusted data, **Hungary's GDP rose by 1.3 per cent quarter on quarter.** On the output side market services and construction were the key drivers of growth. Based on the monthly production indicators (Chart 3) investment and household consumption may have been the primary contributors to economic growth (at the time of writing this paper, no accurate information has yet been available on the structure of the expenditure side).

In December 2017, industrial output was down 0.5 per cent year on year, while production rose by 1.3 per cent compared to the previous month (Chart 4). The year-on-year index, excluding the working-day effect, was at 4.5 per cent, which is attributable to the fewer by tow working days. **The performance of the manufacturing subsectors showed a different picture in December. The output of vehicle manufacturing, representing a considerable weight, was up,** supported primarily by the manufacture of vehicle parts. In addition, the output of metal industry also rose year on year. The moderate industrial performance in December is attributable to the fact that **the output of certain engineering subsectors fell behind that recorded a year ago,** which was primarily the result of the decline in the manufacture of machinery and electronic products. **On the whole, forward-looking indicators reflect a positive picture with regard to the outlooks of the Hungarian industry.** The business sentiment of Hungary's key trading partners continued to develop positively, and in addition, **both Hungary's and Germany's new industrial orders rose in the past period.**

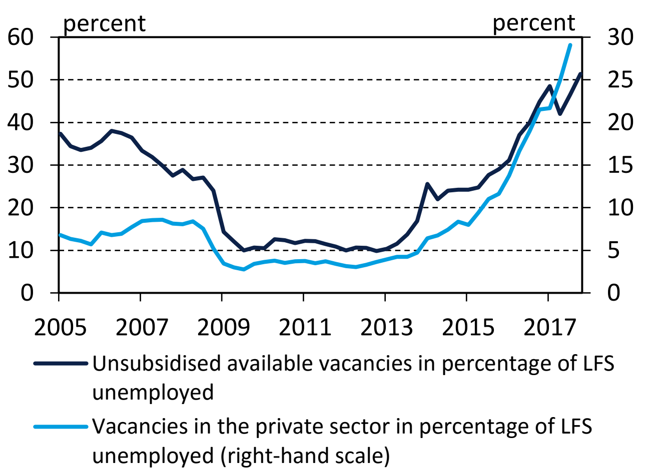
In December 2017, in line with the developments in industrial production, exports also performed moderately. **Expressed in euro terms, the value of exports and imports was up 2.5 per cent year on year**, thus trade surplus rose by EUR 12 million. **In November 2017 the terms of trade**

Chart 5: Number of persons employed and the unemployment rate



Source: HCSO

Chart 6: Indicators of labour market tightness



Note: quarterly data

Source: National Employment Service, HCSO

slightly improved year on year. As regards the developments in the terms of trade, the terms of trade deteriorating effect of the change in the relative price of mineral fuels and processed goods was offset by the relative price change of chemical goods, food, machinery and transport equipment.

In December 2017, the volume of construction output was up 35.0 per cent year on year, while output rose by 3.9 per cent compared to the previous month. The dynamic growth of the sector was also **supported by the manufacturing capacity expansions and the construction of residential buildings, in addition to the projects implemented from EU funds. Forward-looking indicators project positive construction industry performance.** The volume of concluded new contracts increased by 124.7 per cent, while the month-end volume of construction companies' contract portfolio was up 129.5 per cent year on year.

In December, according to the preliminary data, **retail sales volume was up 4.7 per cent 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. As regards the CEE region, the growth in turnover continued at a bustling rate.

1.2.2. Employment

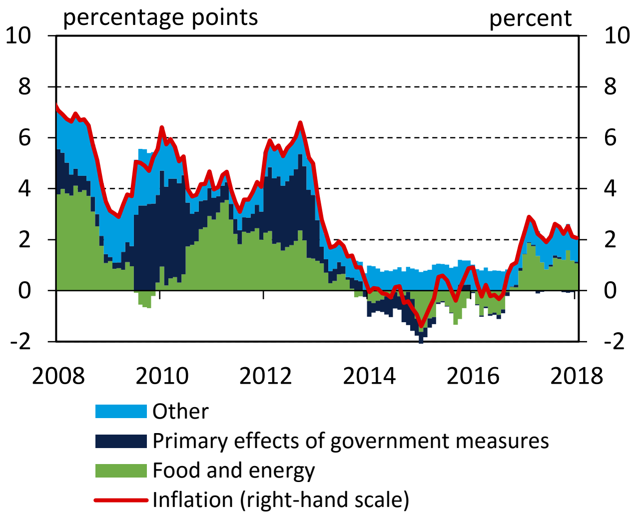
According to the Labour Force Survey data, in the **fourth quarter of 2017** the labour force participation rate stagnated, employment rose and in parallel with this unemployment dropped, with the **unemployment rate declining on the whole to 3.8 per cent** (Chart 5). **Private sector employment continued to rise**, while within the general government a further fall was recorded in the number of public workers.

In the fourth quarter of 2017, according to the data released by the National Employment Service, both the number of non-subsidised vacancies, indicating corporate labour demand, and the non-subsidised vacancies, capturing the match of labour demand and supply, rose quarter on quarter. The tightness indicators calculated from various statistics indicate a **historically tight labour market environment** (Chart 6).

1.3. Inflation and wages

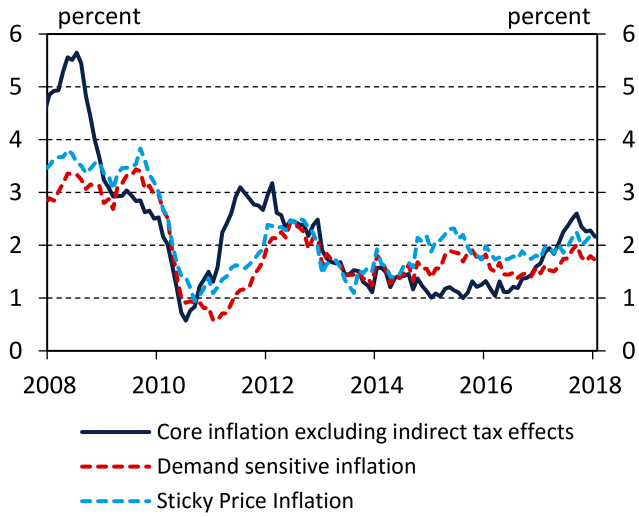
In January 2018, inflation stood at 2.1 per cent, core inflation at 2.5 per cent and core inflation excluding indirect taxes at 2.2 per cent. Underlying inflation indicators remained unchanged on the whole, at around 2 per cent, below the core inflation. In December, private sector gross average wage rose by 13.1 per cent year on year. As regards the last year as a whole, the annual index of the private sector gross average wage was 11.6 per cent. The vigorous wage dynamics was also supported, in addition to the historically tight labour market environment, by the effect of the measures included in the wage agreement, taken at the beginning of the 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 December 2017, gross average wage in the private sector rose by 13.1 per cent, while regular average wage **was up 12.7 per cent year on year**. In the private sector the dynamics of both the gross and regular average wages accelerated compared to November. The regular average wage rose to a higher degree on a monthly basis compared to December 2016, while bonus payments slightly exceeded the rate observed in last December. As regards the last year as a whole, the annual index of the private sector gross average wage was 11.6 per cent. The vigorous wage dynamics was supported, in addition to the **historically tight labour market environment, by the direct and spill-over effect of the measures included in the wage agreement at the beginning of the year**.

1.3.2. Inflation developments

In January 2018, year-on-year inflation was 2.1 per cent, while core inflation and core inflation excluding indirect taxes stood at 2.5 and 2.2 per cent, respectively (Chart 7). Inflation did not change, while core inflation fell by 0.1 percentage point relative to the previous month. The decrease in core inflation is primarily attributable to the fall in the price index of industrial goods.

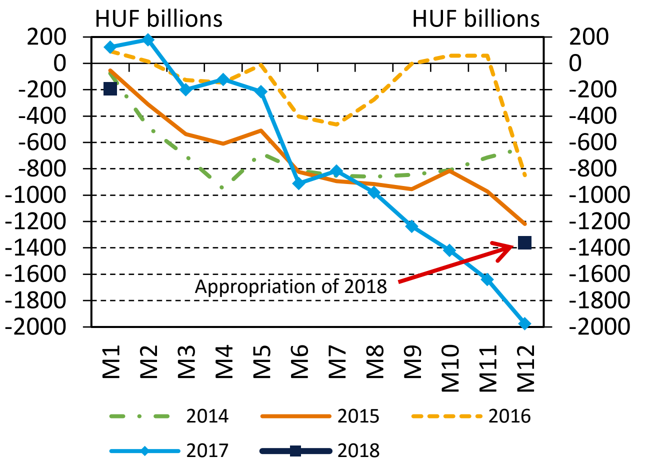
Underlying inflation indicators remained unchanged on the whole, still being around 2 per cent, below the core inflation (Chart 8). In December 2017, agricultural producer prices rose by 5.1 per cent in annual terms, while the domestic sales prices of the consumer goods sectors increased by 3.4 per cent.

The January inflation and core inflation data corresponded to the projection in the December Inflation Report. Inflation will reach the 3 per cent target sustainably from mid-2019.

1.4. Fiscal developments

In January 2018, the central sub-sector of the general government closed with a deficit of HUF 193 billion, representing a higher monthly deficit than the January values registered in the past years.

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



Source: Budget Act of 2018, Hungarian State Treasury

In January 2018, the central sub-sector of the general government closed with a deficit of HUF 193 billion, representing a higher monthly deficit than the January values registered in the past years (Chart 9). The higher cash-based deficit in January was caused primarily by the advance payments related to EU transfers.

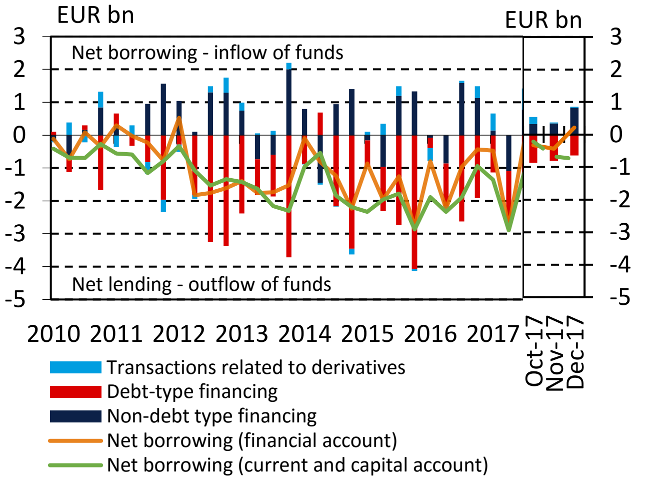
Within the **revenues of the central sub-sector,** tax and contribution revenues rose by roughly HUF 80 billion year on year, primarily due to the growth in value added tax and personal income tax revenues. Compared to the previous year, notable decrease was registered only in the corporate income tax revenues. The revenues related to state assets fell short of the value recorded last year, which is attributable to the high base resulting from the proceeds from the land sales in 2017.

Among the **expenditures of the central sub-sector**, the expenses related to EU transfers substantially rose year on year. The gross own expenditures of the budgetary organisations and institutions were up by roughly 30 per cent compared to last January. The interest expenditures of the budget declined relative to last January, which is partly attributable to the fall in long-term yields, and partly to the persistently close to zero yield of short-term government securities.

1.5. External balance developments

In December net lending of the economy rose to EUR 750 million, resulting from a larger expansion in the current account and a smaller one in the capital account. In addition, according to the data of the financial account, an FDI inflow of EUR 220 million took place in December.

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 December net lending of the economy rose to EUR 750 million, resulting from a larger expansion in the current account and a smaller one in the capital account. According to the unadjusted figures, the continuing rise in net lending was achieved under a material decline in trade balance, which was substantially exceeded by the major growth in the transfer balance resulting from the inflow of EU transfers, accompanied by a moderate further increase in the income balance deficit. The decline in the balance of goods in December was mostly attributable to bustling imports.

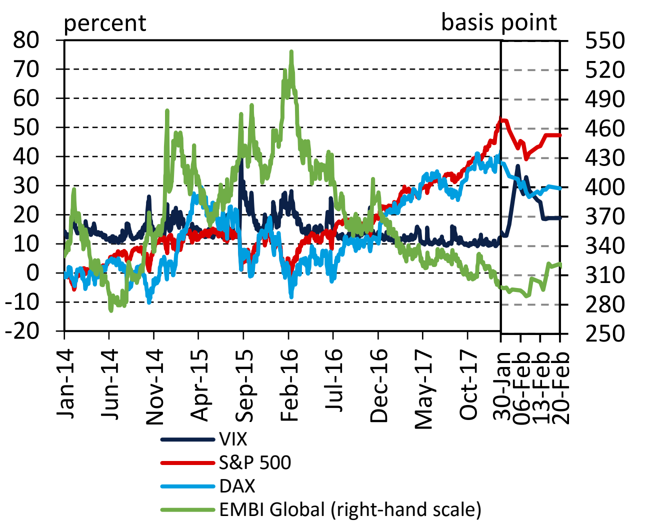
According to the financial account data, the inflow of funds amounted to EUR 220 million in December, achieved under an FDI inflow in excess of the outflow of debt liabilities (Chart 10). The increase in foreign direct investment was primarily attributable to the reinvested earnings. As a result of transactions, net external debt of Hungary declined further by EUR 0.6 billion, contributed to by the general government and the corporate sector, while the net external debt of banks rose. Although in connection with the EU transfers the receivables of the general government from the EU declined, foreign exchange reserves increased – due to the inflow of transfers and the fine-tuning swap instrument related to the quantitative restriction – at a higher rate, thus the net external debt of the government declined. The rise in the net external debt of the banking sector was achieved under a decline in receivables outstripping the fall in debts.

2. FINANCIAL MARKETS

2.1. International financial markets

Global investor sentiment in the period following the previous interest rate decision first materially deteriorated, followed by a moderate adjustment. Developed and emerging market stock exchanges dropped on the whole by about 4-6 per cent, while the VIX index, measuring stock exchange volatility, stabilised above 20 per cent after an initial surge. The yields of developed market government securities were up by around 5-15 basis points. Emerging market yield levels typically also increased, reflected by the moderate rise in the EMBI Global bond spread above 300 basis points. In the foreign exchange markets the dollar exchange rate remained close to EUR 1.23, while in the commodity market the oil price was down by 6 per cent.

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



Source: Bloomberg

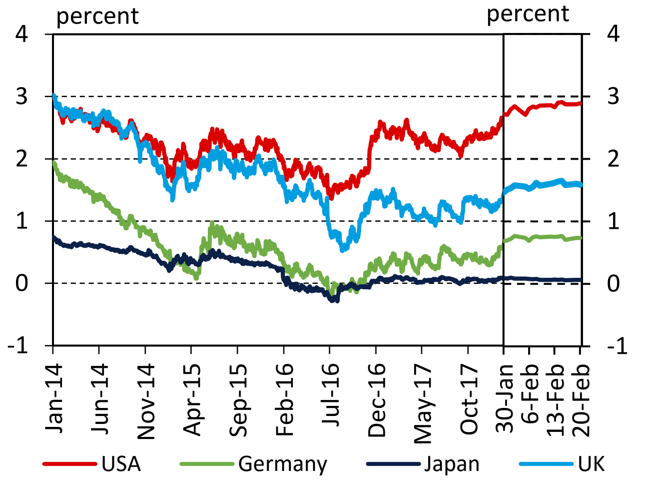
In the first half of the period, there was a temporary material deterioration in global investor sentiment. The growth in volatility was primarily linked with the intense trading resulting from the US data releases, the adjustment of previous persisting positive sentiment and the change in technical elements of trading.

The latest US labour market data outstripped economists' expectations and drove investors' attention to the rising inflation and yield expectations, as a result of which at the beginning of February a sell-off was registered in the equity and bond markets. The rate of the sales was presumably boosted by the technical effect of the algorithmic trading, which has gained ground in recent years, as well as by the persistent continuous price rise without any material adjustment. In the first half of the period under review, the VIX index rose close to 40 per cent and although at the end of the period markets calmed down, the index fell back only to 21 per cent, which represented a rise of 7 percentage points compared to the end of the previous period.

Both the developed and emerging market stock exchange indices declined in the past month (Chart 11). The first half of the period registered a major fall in the equity market, mostly attributable to the US labour market figures exceeding the expectations and to the change in the technical conditions of trading experienced in recent years. Indices once again rose in the second half of the period, nevertheless the developed markets registered a decrease of 4-6 per cent in total. Amid the negative sentiment, the MSCI emerging market equity index also dropped by 4 per cent.

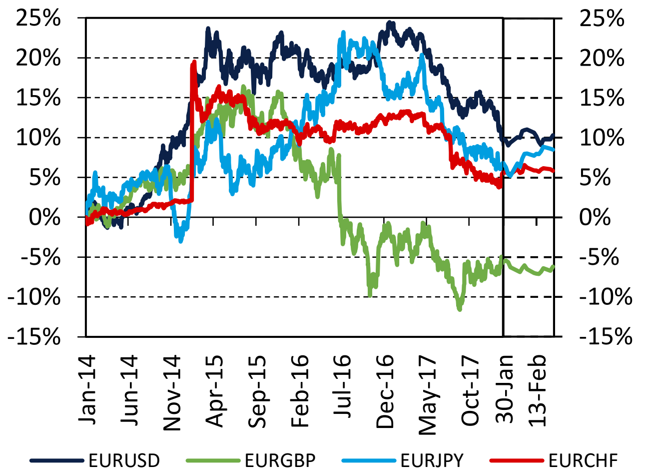
Long-term yields substantially rose both in the developed and emerging markets (Chart 12). Contrary to the adjustment in the equity markets, no turn-back in the yield increase was observed in the bond markets in the second

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

half of the period. Long-term yield in the United States rose by about 15 basis points, continuing the upward trend lasting since September. This was primarily due to the increasing inflation expectations and the rise in bond market supply. Euro area long-term yields also increased during the period, albeit to a smaller degree than the US ones, due to the different monetary policy stance of the ECB's and the Fed's government securities programmes. Emerging markets were also characterised by rising yields, boosted by risk aversion and also reflected by the 15 basis points increase in the EMBI Global bond spread.

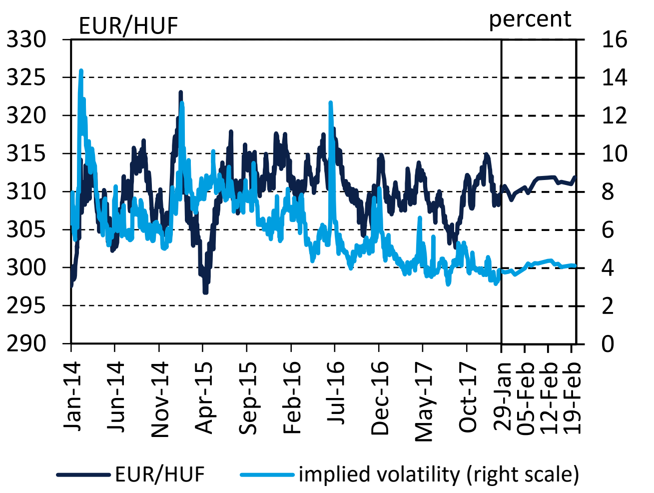
The euro-dollar exchange rate still fluctuates around the level of 1.23 (Chart 13). After the release of the labour market figures, the dollar temporarily appreciated against the euro, but as a result of the favourable data about the euro area, in the second half of the period it returned close to the 1.23 exchange rate level. **The market prices the Fed's next interest rate hike to March,** while as regards the entire year the current expectation calculates with three interest rate increases, also supported by the minutes of the January Fed meeting. **In the case of ECB, the market pricing projects no interest rate hike for 2018.**

World market price of crude oil dropped by 6 per cent. The decrease in the oil price was contributed to by the rise in US crude oil reserves and oil extraction. In addition, according to the economists, US oil extraction may rise further, and one of the main North Sea oil pipelines was also repaired after a temporary closure, which had a depressing effect on prices.

2.2. Developments in domestic money market indicators

Following the January interest rate decision, the forint slightly depreciated against the euro and dollar, together with the currencies of the region. The government yield curve became steeper, as long-term yields materially rose. The 3-month BUBOR steadily stood at 0.02 per cent. Non-residents' forint government securities holding declined by HUF 21 billion, thus their share dropped to 21 per cent. Hungarian CDS spread stood at 82 basis points.

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



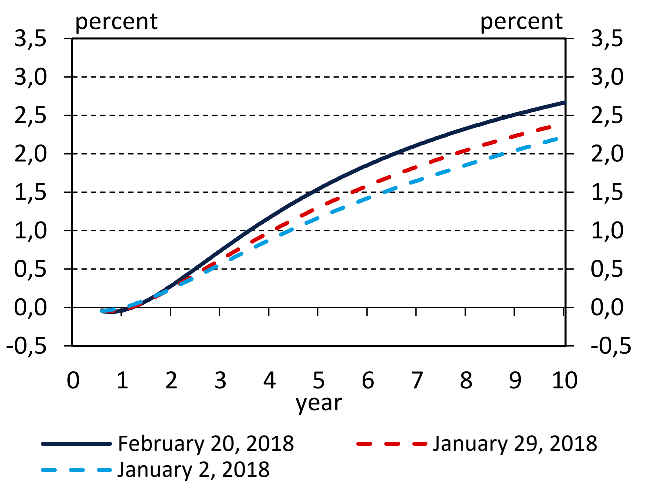
Source: Bloomberg

During the period under review, the forint, together with the currencies of the region, depreciated against the euro. Under steadily low volatility, the forint depreciated moderately, by 0.7 per cent against the euro compared to the previous interest rate decision, closing the period at 312.5 (Chart 14). On the whole, the Czech koruna and Romanian leu did not change significantly, while the Polish zloty depreciated by 0.5 per cent against the euro by the end of the period. The currencies of the region depreciated against the dollar by roughly 1-1.5 per cent.

The government yield curve became steeper: the short-term yields remained steady, while the middle of the yield curve shifted upward by 10-15 basis points, and the longer – over 3 years – end of the curve was up 25-35 basis points (Chart 15). The secondary market long-term, ten-year yields also rose significantly, by 25 basis points.

At the bond auctions of the period there was a strong demand mainly for long-term government securities. In the case of 3-month Treasury bill auctions there was an approximately twofold bid-to-cover, while at the latest auction the Government Debt Management Agency issued Treasury bills HUF 10 billion in excess of the announced quantity. The average auction yields were still at 0 per cent in all cases. Demand at the 12-month Treasury bill auctions varied; while at the first auction it was twice as high as the announced quantity, at the latest auction demand fell short of the announced amount. New issue developed accordingly, issuance at the auctions was made in the amount of 33, 30 and 20 billion, respectively, where in the first case the National Debt Management Agency accepted an amount higher by HUF 3 billion and at the latest one lower by HUF 10 billion. Average yield was still around 0 per cent. At the auctions of the long-term government securities, the largest demand was shown primarily for the 5- and 10-year bonds, although as a result of the yield increase in the secondary market, the average yield of the 5-year and 10-year bonds rose by more than 40 and 50 basis points, respectively. The bid-to-cover ratio of the 3-year bonds was more moderate; the average yield was around 0.9 per cent, exceeding the January level by 43 basis points.

Chart 15: Shifts in the spot government yield curve



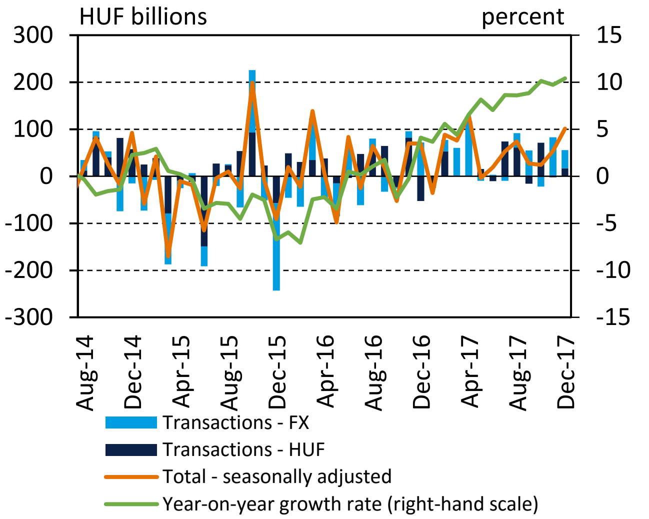
Source: MNB, Reuters

The stock of Hungarian forint-denominated government securities held by non-residents dropped by HUF 21 billion in the period, thus their holdings amounted to HUF 3,393 billion at the end of the period. Their share in forint government securities dropped to 21 per cent. **The 5-year Hungarian CDS spread** rose moderately, by 2 basis points, to 82 basis points, which was in line with the regional and global trends.

3. TRENDS IN LENDING

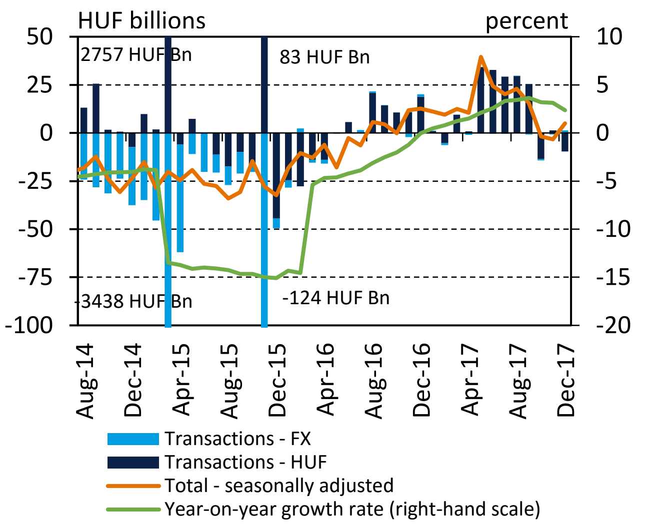
In December, the outstanding corporate loans of credit institutions rose by HUF 55 billion due to transactions, which is equivalent to an increase of HUF 101 billion on a seasonally adjusted basis. No substantial change was registered in the outstanding loans of the credit institutions to households: it decreased by HUF 8 billion as a result of transactions, thus the annual growth in outstanding lending amounted to 2.4 per cent at the end of December. The smoothed interest rate spread of forint corporate loans dropped by 50 basis points to 1.6 percentage points in December. The spread on new housing loans follows a decreasing trend compared to the end of 2016.

Chart 16: Net borrowing by non-financial corporations



Source: MNB

Chart 17: Net borrowing by households

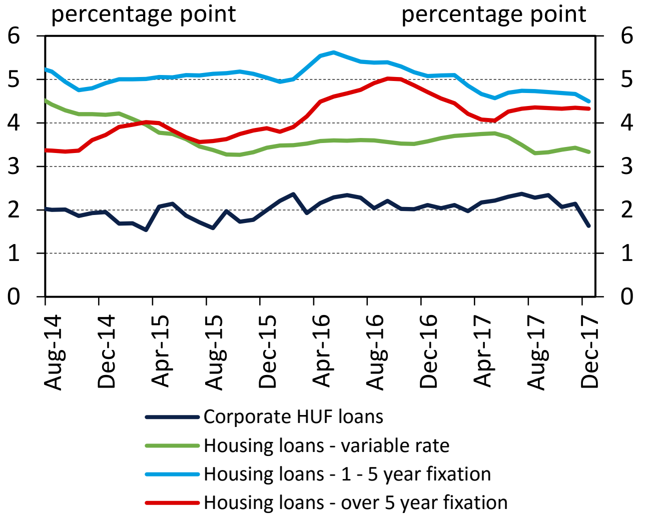


Source: MNB

In December, the outstanding corporate loans of credit institutions rose by HUF 55 billion due to transactions, which is equivalent to an increase of HUF 101 billion on a seasonally adjusted basis (Chart 16). In a breakdown by currency, forint loans and foreign currency loans increased by HUF 16 billion and HUF 39 billion, respectively. In December 2017, corporate lending rose by 10.4 per cent in annual terms. Excluding money market transactions, the volume of new loans amounted to HUF 406 billion during the month; the value of the money market transactions was HUF 93 billion. Accordingly, the gross amount of new loans in 2017 was up 30 per cent in annual terms.

The outstanding loans of credit institutions to households dropped by HUF 8 billion due to transactions, which however is equivalent to an increase of HUF 5 billion on a seasonally adjusted basis. Thus, the annual growth in outstanding lending amounted to 2.4 per cent at the end of December (Chart 17). The value of new contracts concluded during the month was HUF 107 billion, thus in annual terms it registered a growth of 40 per cent. As regards the individual sub-segments, the volume of new housing loans and personal loans rose by 39 and 47 per cent, respectively. To date, the disbursement of Certified Consumer-friendly Housing Loan products amounted to HUF 25 billion, with the contribution of December to this being HUF 11 billion, accounting for 19 per cent of new housing loans in the month.

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 50 basis points to 1.6 percentage points in December (Chart 18). However, the spread on small-amount market loans – typically taken by SMEs – exceeds the average of the other Visegrád countries by 85 basis points. The average smoothed interest rate spread on housing loans calculated on the basis of the annual percentage rate (APR) dropped by 25 basis points compared to the end of 2016, and amounted to 3.3 percentage points. In the case of loans, the interest rate of which is fixed for 5 years at the most this value dropped by 60 basis points to 4.5 percentage points, while in the case of loans fixed for more than 5 years, it fell to 4.3 percentage points after a decrease of 38 basis points. The problem of high spreads affects primarily the market of long-term fixed-rate transactions.