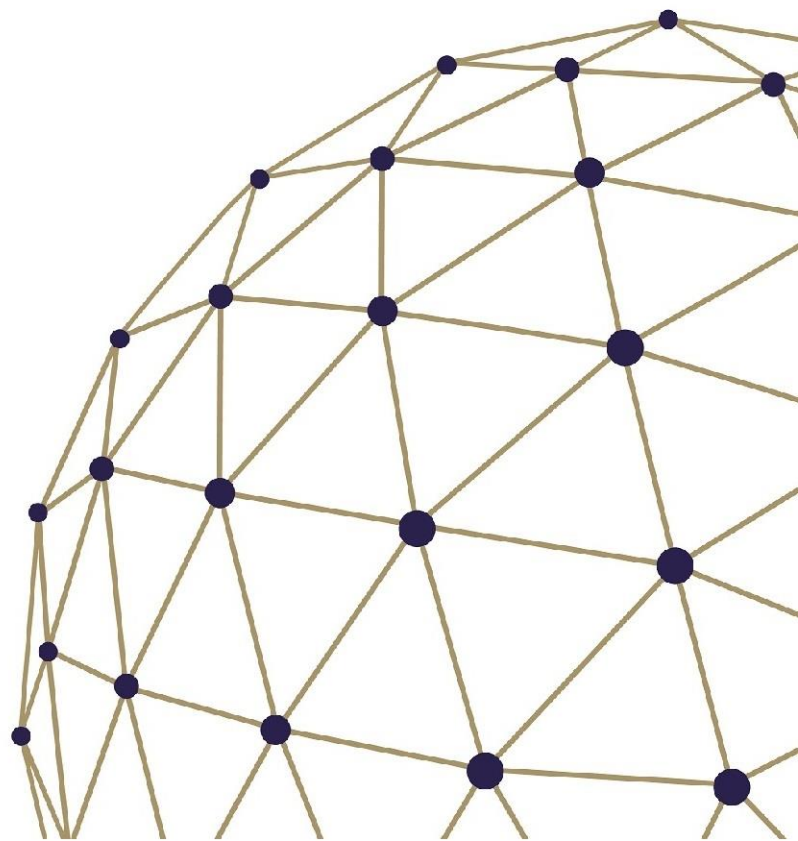




Macroeconomic and financial market developments

May 2017

Background material
to the abridged minutes of the
Monetary Council meeting
of 23 May 2017



Time of publication: 2 p.m. on 7 June 2017

The background material ‘Macroeconomic and financial market developments’ is based on information available until 19 May 2017.

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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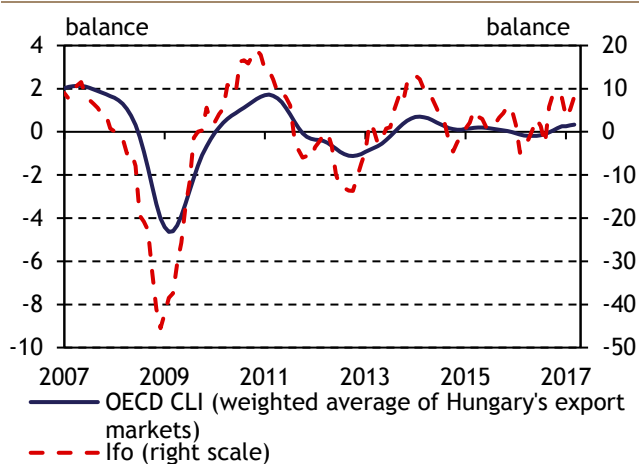
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1. MACROECONOMIC DEVELOPMENTS

1.1. Global macroeconomic environment

GDP figures for the first quarter of 2017 showed a positive picture overall. The German economy – Hungary's most important trading partner – expanded, and growth in the US also continued. The medium-term view on the European and US economic activity has improved in recent months. The growth of the economies in the Central and Eastern European region picked up considerably.

Chart 1 Business climate indices in Hungary's export markets

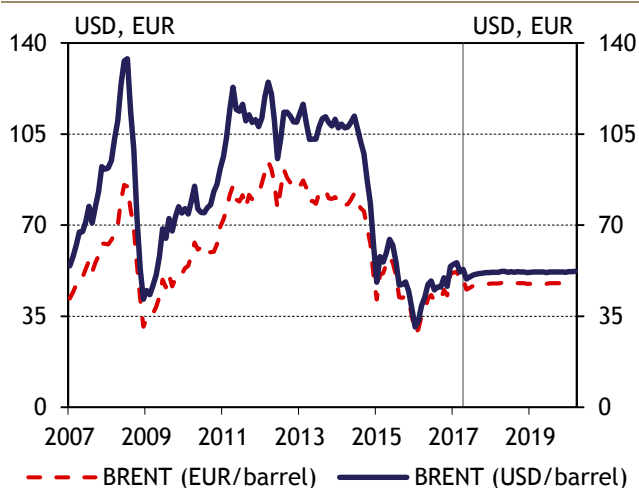


Source: OECD, Ifo

The euro area economy registered a quarter-on-quarter growth rate of 0.5 per cent in the first quarter of 2017 (1.7 per cent in annual terms).

In April the Purchasing Manager Index, reflecting the short-term economic outlooks, continued to rise with respect to the euro area. As a result, market expectations with respect to the euro area rose slightly throughout 2017 and stood at 1.7 per cent. However, the exit of the United Kingdom from the EU continues to carry significant medium and long-term risks and looking ahead, the early parliamentary election on 8 June may also generate uncertainty. The more than three-year stable growth of the German economy, Hungary's most important export partner, continued in the first quarter, supported by buoyant domestic demand through investments and a sustained increase in household consumption. In addition, the contribution of net exports to the German GDP was probably also positive. German industrial production, and new industrial orders also increased in March in annual terms. The Ifo index, capturing the outlooks of the German industry slightly decreased in April; however, when examining the average of the past months, it continued to remain at favourable levels (Chart 1).

Chart 2 Brent crude oil world market prices



Source: Bloomberg

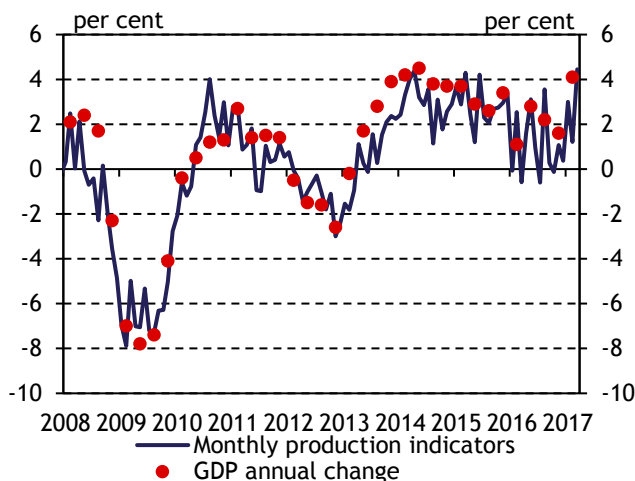
In an international outlook, annual inflation rates decreased in the past months relative to the values observed at the beginning of the year.

In the world's major economies inflation fell in March, and the underlying processes continued to develop moderately. Oil prices fell below USD 50 in the second half of April and at the beginning of May, which is mainly explained by the rise in shale oil production in the USA. From mid-May, onwards the price rose again and the Brent crude oil price was above USD 51 (Chart 2). World market prices of industrial commodities and unprocessed food fell moderately in April.

1.2. Domestic real economy developments

According to the HCSO's data release, in 2017 Q1 Hungary's GDP grew by 4.1 per cent year on year. The economic growth rate was 1.3 per cent relative to the previous quarter, which was the best of the four Visegrád countries. In the first quarter of 2017, whole economy employment rose by 2.5 per cent year on year. The unemployment rate stood at 4.5 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

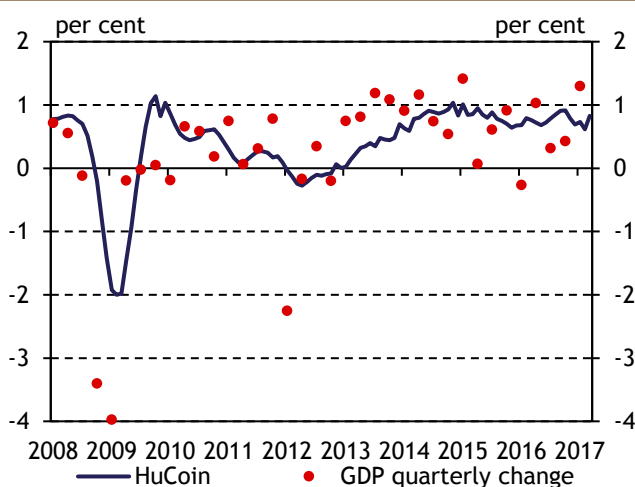
1.2.1. Economic growth

According to the HCSO's preliminary data release in the first quarter of 2017 Hungary's gross domestic product grew at a rate of 4.1 per cent year on year and by 1.3 per cent compared to the previous quarter. Market services and industrial production contributed to the growth to the largest degree.

Based on the HCSO's preliminary data release in terms of production, market services and the favourable performance of the industry contributed to the growth to the largest degree. The details of the production and expenditure side structure of the GDP are not yet available for the public, therefore assumptions can only be formulated about the processes behind incoming data on the basis of monthly production indicators. Based on these indicators industrial production in the first quarter grew significantly again following the deceleration in vehicle manufacturing observed last year. As regards construction output in addition to the low basis in 2016, infrastructure development, as well as the construction of industrial buildings and warehouses account for the substantial growth. Retail sales continued to expand (Chart 3).

Based on the HuCoin indicator, which reflects the medium-term prospects of the domestic economy, the underlying trends of economic activity improved compared to the past months (Chart 4).

Chart 4 Evolution of the HuCoin indicator



Note: The historic values of the HuCoin indicator may have been changed by revisions to GDP data.

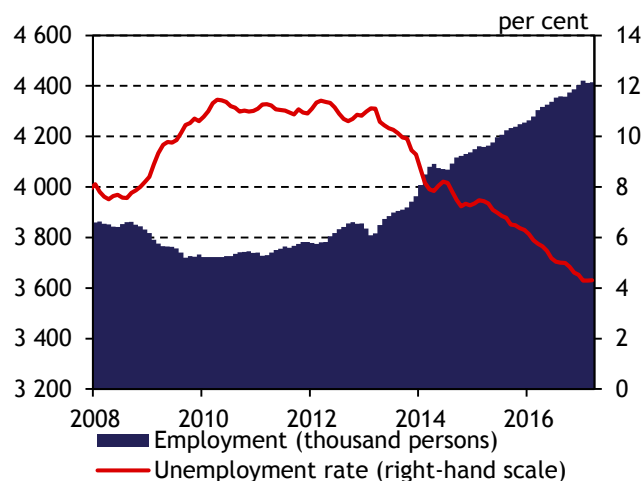
Source: MNB calculation based on HCSO data

In March 2017, the volume of industrial output was up 13.4 per cent year on year, while on a seasonally adjusted basis it rose by 0.7 per cent compared to the previous month. The production level excluding the working-day effect rose by 10 per cent year-on-year because there were more business days this year.

The performance of the manufacturing sub-sectors improved roughly relative to the previous month; however, with a high share in output engineering industry production decreased, which was primarily attributable to a degradation in the performance of the vehicle industry. **On the whole, forward-looking indicators reflect a favourable picture with regard to the outlooks of the domestic industry.**

Based on preliminary data, in March 2017 **the value of goods exports and imports increased by 18.4 per cent and**

Chart 5 Number of persons employed and the unemployment rate



Source: HCSO

21 per cent, respectively, year on year in euro terms, thus the trade surplus was down by EUR 1.5 million relative to last March. In February 2017, the terms of trade continued to deteriorate, in which the relative price change of mineral fuels and food also played a key role.

In March 2017, **the volume of construction output was up 33.3 per cent year on year**: output increased by 3.4 per cent compared to the previous month. Production of the two main construction groups developed in a similar manner in March: both the construction of buildings and the volume of other construction increased by 30.2 per cent and 48.8 per cent, respectively. The volume of concluded new contracts decreased by 31.3 per cent, while the month-end volume of construction companies' contract portfolio was up 81.3 per cent year on year.

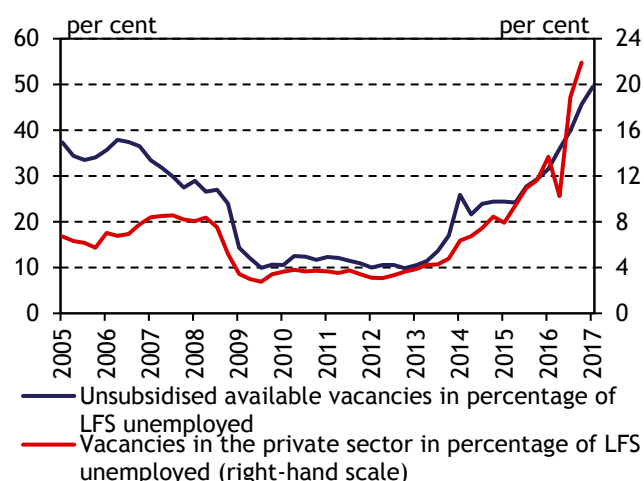
According to the raw data, the volume of retail sales was up 3.6 per cent, in March. Based on the data adjusted for the calendar day effect, it rose by 5.6 per cent year on year, while turnover increased by 1.4 per cent compared to the previous month. As regards the structure of sales, turnover may have increased in March in a wide range of products, and an acceleration was observable following the modest turnover in February. The expansion in the turnover of non-food consumer durables primarily contributed to the expansion of retail sales.

1.2.2. Employment

According to Labour Force Survey data, **in the first quarter of 2017 the number of employees in the national economy increased by 2.5 per cent year on year**. Labour force participation decreased slightly in conjunction with the decrease of the number of unemployed, while employment (with public workers and without public workers) slightly grew in the period. The unemployment rate stood at 4.5 per cent in March (Chart 5).

According to the data released by the National Employment Service (NES) in the first quarter of 2017, the number of non-subsidised vacancies indicating corporate labour demand remained unchanged, while the end-of-quarter number of vacant non-subsidised jobs showing the matching of structure of labour demand and supply declined significantly. Based on the indicators calculated from various statistics, the tightness of labour market continues to be historically high (Chart 6).

Chart 6 Indicators of labour market tightness

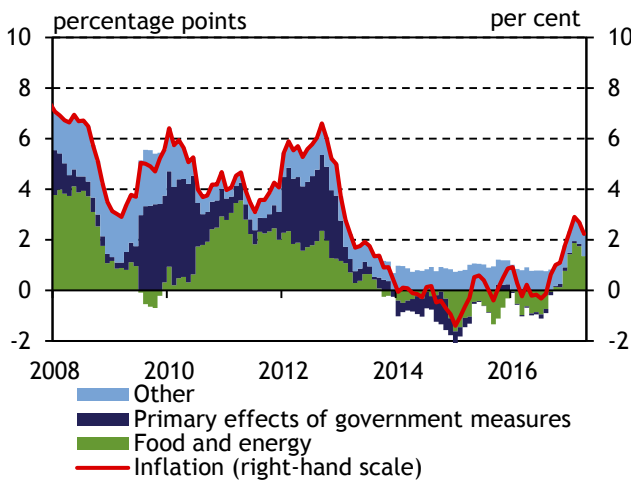


Source: National Employment Service, HCSO

1.3. Inflation and wages

In April 2017, year-on-year inflation was 2.2 per cent, core inflation was 1.9 per cent, while core inflation excluding indirect taxes stood at 1.8 per cent. Underlying inflation indicators essentially remained unchanged compared to the previous month. In the first quarter of 2017 gross average wage in the private sector rose by 9.9 per cent year on year, which was mostly attributable to the administrative measures at the beginning of the year (raising the minimum wage and the guaranteed wage minimum, as well as the reduction of the social contribution tax), and it can be interpreted as the effect of the wage adjustment impacting public corporations.

Chart 7 Decomposition of inflation



Source: MNB calculation based on HCSO data

1.3.1. Wage setting

In the first quarter of 2017, gross average wage and regular wages in the private sector rose by 9.9 per cent and 10.5 per cent year on year, respectively. In March the growth of gross average wages in the private sector was similar to the extent observable in February, while the annual dynamics of regular wages accelerated. Regular wages rose to a greater degree on a monthly basis than usual seasonality in February would suggest. In addition to wage adjustment impacting state-owned companies, the significant growth may be explained by the spillover effect of a greater raise in the minimum wage than in 2012. Similarly to January and February, bonus payments in March also fell short of those recorded last year.

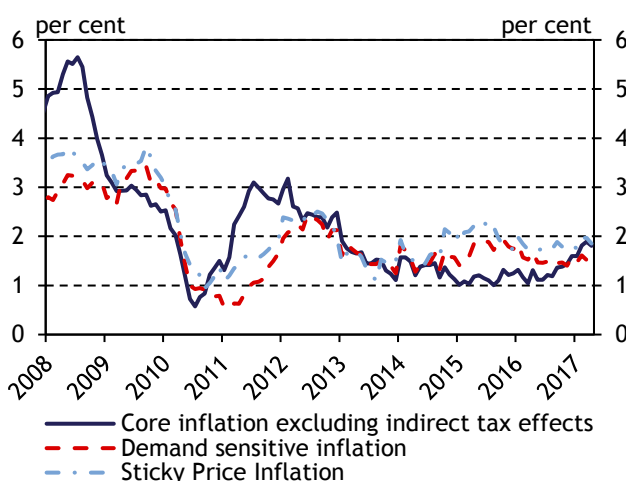
1.3.2. Inflation developments

In April 2017, year-on-year inflation was 2.2 per cent, core inflation was 1.9 per cent, while core inflation excluding indirect taxes both stood at 1.8 per cent (Chart 7). Inflation fell by 0.5 percentage point while core inflation remained unchanged relative to the previous month. Inflation dropped primarily as a result of the decrease in the fuel price index, which is mainly attributable to base effects.

Underlying inflation indicators essentially remained unchanged compared to the previous month, being in the range of 1.5-2.0 per cent (Chart 8). In addition to the low level of imported inflation and inflation expectations, moderate commodity prices also contributed to this. In March 2017, agricultural producer prices rose by 1.4 per cent in annual terms, while the domestic sales prices of the consumer goods sectors remained essentially unchanged.

Considering the incoming April data both the inflation and the core inflation fell short of the expectations in our Inflation Report published in March. According to our current forecast, mainly driven by base effects the inflation will continue to fall in the coming months and will remain below the 3 per cent target throughout 2017. Starting from the first half of 2018, inflation will be sustainable at the 3 per cent inflation target.

Chart 8 Measures of underlying inflation indicators

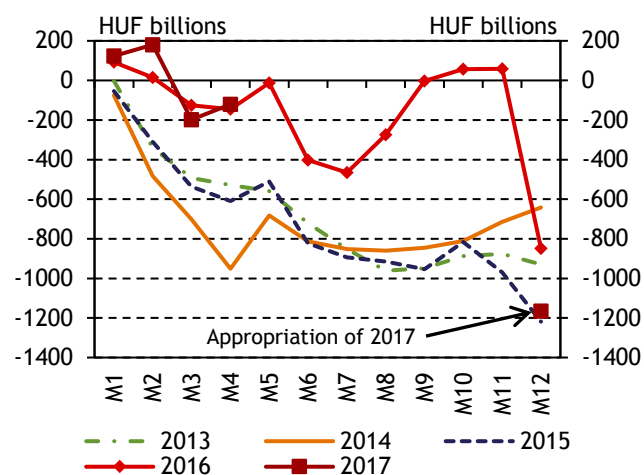


Source: MNB calculation based on HCSO data

1.4. Fiscal developments

Following a more significant deficit in the previous month, the central sub-system of the general government closed with a surplus of HUF 77 billion in April 2017, thus the cumulative deficit of the current year was around HUF 120 billion at the end of April.

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



Source: MNB calculation based on HCSO data

Following a more significant deficit in the previous month, the central sub-system of the general government closed with a surplus of HUF 77 billion in April 2017, thus the cumulative deficit of the current year was around HUF 120 billion at the end of April. The amount of the cumulative deficit is far lower relative to the data from the past years and it is slightly more moderate than the 2016 balance (Chart 9). The surplus of the current year compared to the data from last April was primarily caused by a nearly HUF-150-billion decrease in VAT refunds due to changes in legislation, which was partly offset by the increase in expenditures affecting budgetary institutions (due to a low basis in 2016).

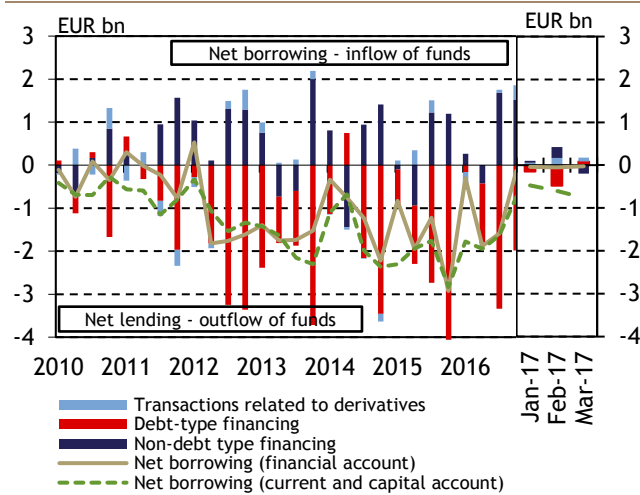
The revenues of the central sub-system in April 2017 were up by roughly HUF 175 billion compared to the previous year. The largest part of increase was attributable to the changes in the rules of VAT refunds, based on which the deadline of refunds changed from 75 days to 45 days for “reliable tax payers”. Thus, in April instead of the reclaims for January the reclaims for February – which represent a smaller volume – were transferred.

The expenditures of the central government in April 2017 were HUF 78 billion higher than in the same period of the previous year. Mainly the net expenditures of budgetary institutions increased. The increase was somewhat offset by the decline of normative and special subsidies by HUF 45 billion.

1.5. External balance developments

Similarly to the previous months, the economy's net lending reached a high level in March again. Based on the financing side developments, the net external liability of the economy remained basically unchanged. The net external debt of the economy increased slightly by as much as EUR 80 million in March, the impact of which was offset by the similar decrease in foreign direct investments.

Chart 10 Structure of net lending (unadjusted transactions)



Source: MNB

Similarly to the previous months, the economy's net lending reached a high level in March again (Chart 10). The high surplus in the external trade balance was supported by growth in industrial production in March, whose effect was partly offset by the decline in terms of trade, as well as a growth in import as a result of increasing consumption.

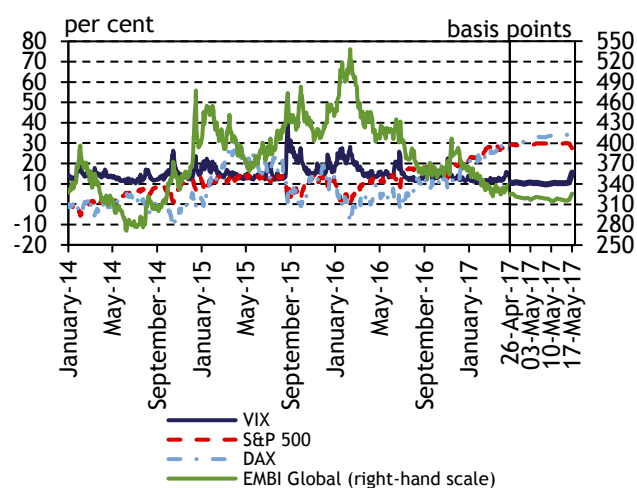
Based on the financing side developments the net external liability of the economy remained basically unchanged. The net external debt of the economy increased slightly by as much as EUR 80 million in March, the impact of which was offset by the similar decrease in foreign direct investments. The increase of debt-type liabilities was mainly related to the consolidated general government in which the main role was played by fall in the reserve holdings. The moderate decline in foreign direct investments (EUR 83 million) was attributable to the decrease of intercompany loans of foreign-owned companies operating in Hungary. The net external debt of the government increased due to the decrease in foreign currency reserves, which was associated with the maturity of the FX swaps related to forint conversion. The net external debt of the banking system rose slightly (EUR 90 million), alongside the significant increase of gross figures: receivables and debts - within that mainly short-term loans - increased by EUR 500 million and EUR 600 million, respectively. The decrease of companies' net external debt was mainly attributable to the increase of commercial lending abroad.

2. FINANCIAL MARKETS

2.1. International financial markets

First investor sentiment improved and then it deteriorated to a similar degree in the last week since the Council's latest interest rate-setting decision, thus global risk indicators remained basically unchanged. Investors mostly focused on the result of the French presidential election, changes in geopolitical tensions, the monetary policy exercised by the Fed and the ECB, the repercussions of the abandonment of the exchange rate cap in the Czech Republic, as well as the events in domestic policy in the United States. By mid-May the exchange rate of the euro appreciated against the US dollar.

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



Source: Bloomberg

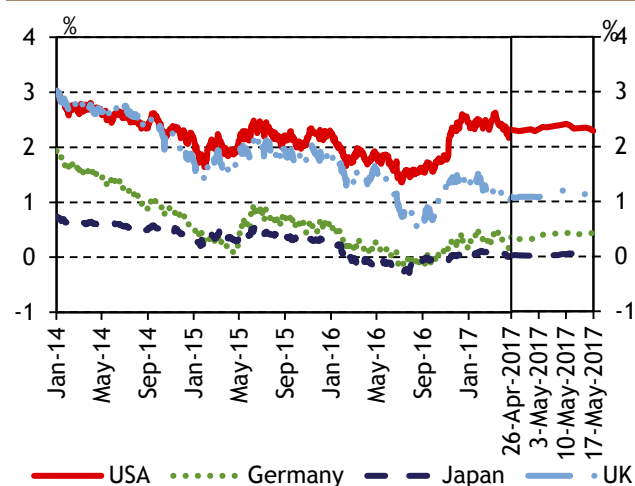
Global risk appetite first improved then deteriorated since the Council's latest policy decision. Over most of the period risk indicators continued to stagnate at a low level. Investor sentiment was determined by the second round of the French presidential election, the temporarily moderate geopolitical risks and the unchanged monetary policy decisions of the main central banks – in line with market expectations. However, as a result of the events in US domestic policy there was a deterioration of sentiment at the end of the period, which mainly had an impact on the US markets. Throughout the period European stock exchange indices rose, while US indices fell. The Japanese yen and gold, considered as safe-haven assets, depreciated, while developed market bond yields remained broadly unchanged in the period.

European stock exchange indices rose, while those of the US fell. The European stock exchanges were up by 1.5-2 per cent, while US indices fell by 1.2-1.8 per cent. Only the Japanese stock market showed a more significant change than this, as it increased by 2.5 per cent due to the depreciating yen. As a result of the decline in investor sentiment in the US the VIX index rose to 15.6 per cent at the end of the period, despite the fact that it fell near to the historically low level of 9.3 per cent several times in the period. The MSCI composite stock index of emerging markets increased by 2.6 per cent reflecting an improvement in investor demand towards risky assets.

Bond market risk indices rose slightly by the end of the period. The MOVE index, measuring the volatility of the developed bond markets increased by 7 basis points, while the emerging bond market EMBI Global spread rose by 3 basis points (Chart 11).

Typically, developed long-term bond yields declined slightly: the US fell by 10, the British by 3, the German by 1 basis point, while the Japanese was up by 2 basis points. In the periphery countries of the euro area the decrease of yields was more intense, which was partly attributable to the result of the French elections that reassured the markets and meant that the dissolution of the euro area became more unlikely. The latter is supported by the fact

Chart 12 Yields on developed market long-term bonds



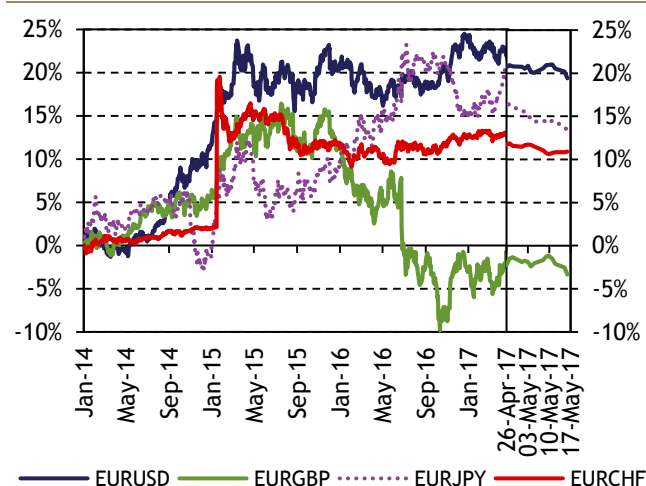
Source: Bloomberg

that the Sentix, an index measuring the probability of the dissolution of the euro area, fell from 20 per cent to 15 per cent. Improving risk appetite had a significant effect on the Central and Eastern European emerging market bond yields, thus a decrease by 11-23 basis points was observable (Chart 12).

The Brent oil price remained unchanged, the WTI fell by 1 per cent. Oil prices fell at the beginning of the period, which was primarily attributable to the investors' fear of oversupply (production in USA, Canada and Libya continued to intensify). However, prices started to rise in the second half of the period. Announcements made by officials from Russia and Saudi Arabia make it clear that the two countries would be willing to expand the production cut to 2018. As a result, prices rose by roughly 3 per cent, thus basically no substantial change was observed in the period.

The EUR/USD exchange rate strengthened (Chart 13). The appreciation of the euro following the first round of the French presidential election proved lasting, by the end of the period the euro appreciated to 1.11 against the US dollar. The movement of the currency cross was influenced by a decline in investor sentiment, which also weakened the US dollar. Essentially the euro only depreciated against the currencies of the European emerging countries, as the latter appreciated as a result of the favourable sentiment in Europe and a shift towards riskier assets. However, due to the decreasing risk aversion typical for most of the period, the Japanese yen, considered as a safe-haven asset, depreciated by nearly 1.6 per cent. Mainly the Czech koruna appreciated against the euro by roughly 1.3 per cent in the region.

Chart 13 Developed market FX exchange rates



Source: Reuters

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

The monetary policy measures of leading central banks remained in the focus of the market's attention. The Fed left its monetary policy unchanged in its May meeting, which was in line with market expectations. However, the market definitely expects an interest rate increase in the June meeting with a probability of 86 per cent, despite the fact that annualised quarterly GDP-growth of 0.7 per cent in the first quarter fell short of economists' expectations. **In its meeting at the end of April the ECB also left its monetary policy unchanged,** which was in line with market expectations as well. The survey conducted by Bloomberg in which 47 analysts were asked, suggests that **the changes to the asset purchase programme may be announced in September,** the reduction of purchases may be started in the first quarter of 2018, and may be completed in 6 months. According to the survey analysts expect the first interest rate increase to be announced in the third quarter

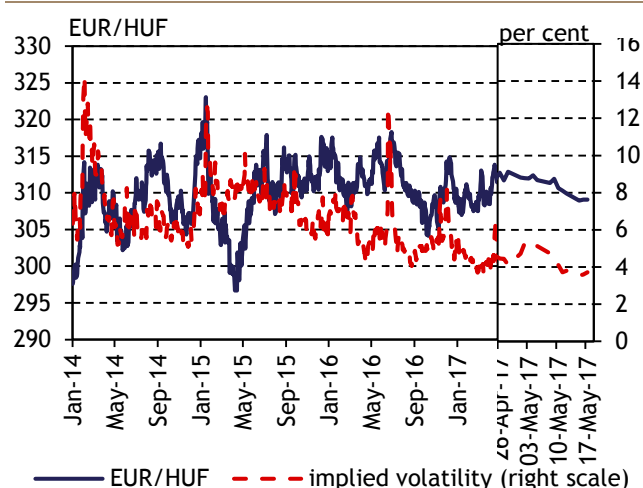
of 2018, which is further highlighted by the fact that interest rate increase may be started in April 2018 based on market pricing. Following a value of 1.5 per cent in April inflation in the euro area rose to 1.9 per cent, close to the ECB target.

Emmanuel Macron, a centrist politician, won the second round of the French presidential elections. The new president wishes to achieve economic growth through government investments in education, easing the legislation regulating labour market and strengthening the European integration. The results prompted a 6-basis-point decrease in the French-German yield spread and the euro appreciated against the US dollar.

2.2. Developments in domestic money market indicators

The forint appreciated slightly more than the Polish zloty in the period. Of the currencies of the countries in the region the Czech koruna appreciated against the euro to the largest degree, while the Romanian leu depreciated. The government securities market yield curve flattened out, as yields declined on long maturities remaining broadly unchanged on short maturities. The stock of Hungarian forint-denominated government securities held by non-residents rose, and their share was somewhat above 23 per cent. In the calm international risk-taking sentiment, the Hungarian CDS spread fluctuated in a narrow band around 114 basis points which was observable on the day of the previous interest rate decision.

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

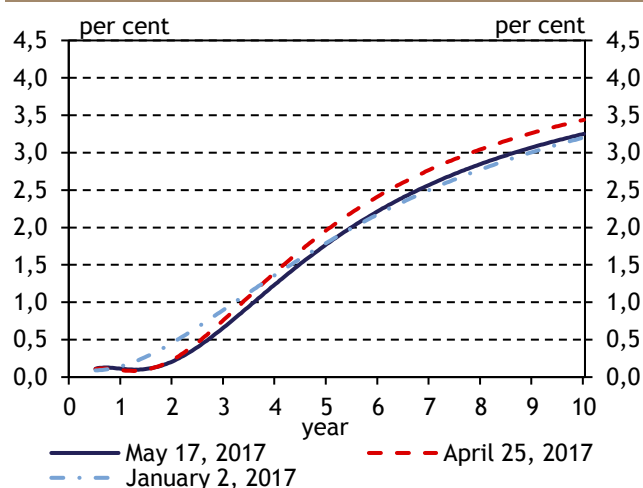


Source: Bloomberg

The forint depreciated slightly against the euro at the beginning of the period, then gradually appreciating it basically appreciated mildly, and closed nearly at 309 (Chart 14). Most currencies in the region appreciated, thus the forint appreciated by 0.9 per cent, the Polish zloty by 0.7 per cent, while the Czech koruna by 1.3 against the euro, offering the best performance among the currencies in the region. However, the Romanian leu depreciated by about 0.9 per cent. In addition to the positive sentiment on the international and European scene the appreciation of the forint was also supported by the GDP-growth data in the first quarter which exceeded market expectations.

The government securities market yield curve flattened out: the below-3-year section of the yield curve basically remained unchanged, while the curve fell to its historical low by 15-20 basis points at both the middle and the long end (Chart 15).

Chart 15 Shifts in the spot government yield curve



Source: MNB, Reuters

During the period, the government bond auctions were characterised by strong demand. At the auctions of 3- and 12-month discount Treasury bills the coverage was mostly doubled in the period, while at the last 3-month discount Treasury bill auction the coverage was more than 3. Auctions of long-term securities were mostly characterised by strong demand, with a coverage of 3-4. In the case of 5- and 10-year government securities there were larger issuance volumes than announced at the auctions held in the period in accordance with the strong demand. The average auction yield of the 3-month discount Treasury bill was 0.04 per cent at the beginning of the period, but it fell to a historical low level of 0.01 per cent again at the last auction. On long maturities, the average auction yields of the 3-, 5- and 10-year government securities fell by 16 basis points.

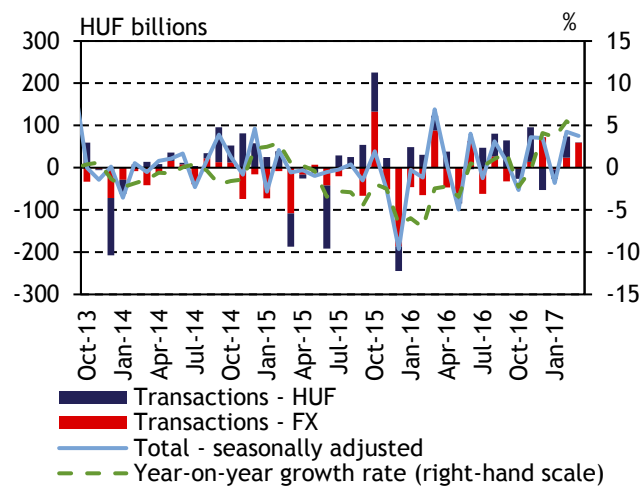
The stock of Hungarian forint-denominated government securities held by non-residents rose by HUF 85 billion in the period, thus their holdings amounted to HUF 3,345 billion at the end of the period. Their share in forint government securities was up to 23.2 per cent. The Hungarian 5-year CDS spread fluctuated in the narrow band

around 114 basis points observed on the day of the last interest rate decision over most of the period, thus there was basically no substantial change: it closed the period at 113 basis points.

3. TRENDS IN LENDING

In March, the outstanding loans of credit institutions to the corporate sector rose by HUF 60 billion in total due to transactions, which is equivalent to an increase of HUF 75 billion on a seasonally adjusted basis. In March, outstanding loans to households including the self-employed sector, rose by HUF 7 billion as a result of loan transactions. The smoothed interest rate spreads of corporate loans fell from 2.11 to 1.97 percentage points in March in terms forint loans, which is 0.5 percentage points higher than the loans disbursed in the domestic currency in the region.

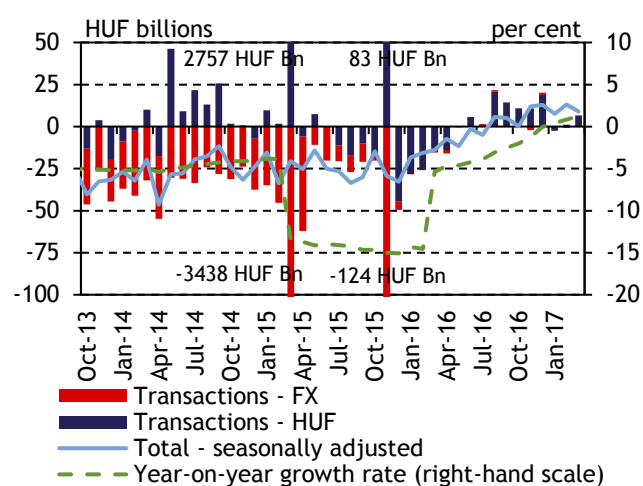
Chart 16 Net borrowing by non-financial corporations



Source: MNB

In March, the outstanding corporate loans of credit institutions rose by HUF 60 billion in total due to transactions, which is equivalent to an increase of HUF 75 billion on a seasonally adjusted basis (Chart 16). The increase was fully attributable to the increase in the stock of foreign currency loans, forint loans remained unchanged. The gross total of new loans was up by 26 per cent in March in annual terms. Excluding money-market type transactions the volume of new loans was HUF 263 billion in the month. The stock of corporate loans increased by 4.3 per cent in annual terms in March 2017 due to transactions. Banks lent HUF 686 billion of the total amount of HUF 700 billion available in the third phase of the Funding for Growth Scheme as the Scheme drew to an end.

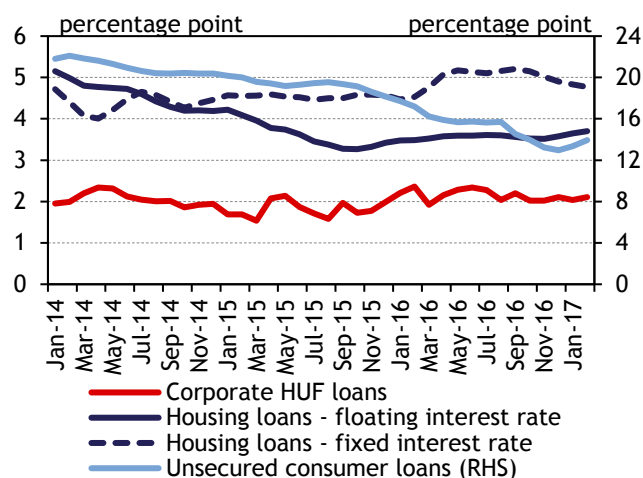
Chart 17: Net borrowing by households



Source: MNB

In March, outstanding loans to households including the self-employed sector, rose by HUF 7 billion as a result of loan transactions (Chart 17). In the period under review, excluding loans from the Funding for Growth Scheme to the self-employed sector, households concluded new loan contracts in a total value of HUF 80 billion, thus the average annual growth in new business volume was 50 per cent; within that the volume of new housing loans rose by 44 per cent. However, the stock of lending to households as a percentage of GDP can be considered low in a regional comparison, and no substantial change is expected in the indicator in the near future.

Chart 18 Development of corporate and household credit spreads



Note: Three-month smoothed spreads on the APR. In the case of corporate forint loans the three-month BUBOR, in the case of euro loans the three-month spread on the monthly EURIBOR. In the case of variable-rate or for up to one year fixed-rate housing loans the three-month BUBOR, while in the case of over the year fixed-rate housing loans the corresponding spread over the IRS. Source: MNB

The smoothed interest rate spreads of corporate loans fell from 2.11 to 1.97 percentage points in March in terms of forint loans (Chart 18), which is 0.5 percentage points higher than the loans disbursed in the domestic currency in the region. However, small-amount market loan spreads - typically taken by SMEs - exceed the average of the other Visegrád countries by 0.8 percentage point. The average interest rate spread on housing loans to households calculated using the annual percentage rate stand at 4.3, which can be considered high in international comparison. This value reflects a 0.1-percentage-point decrease relative to the previous month. The spread on unsecured consumer loans to households rose by 1.28 percentage point in March, and is at a value of 15.21 per cent. Typically, banks justify the increase by becoming more open to riskier clients. The problem of high spreads is focused mainly on the market of over a year fixed-rate transactions.