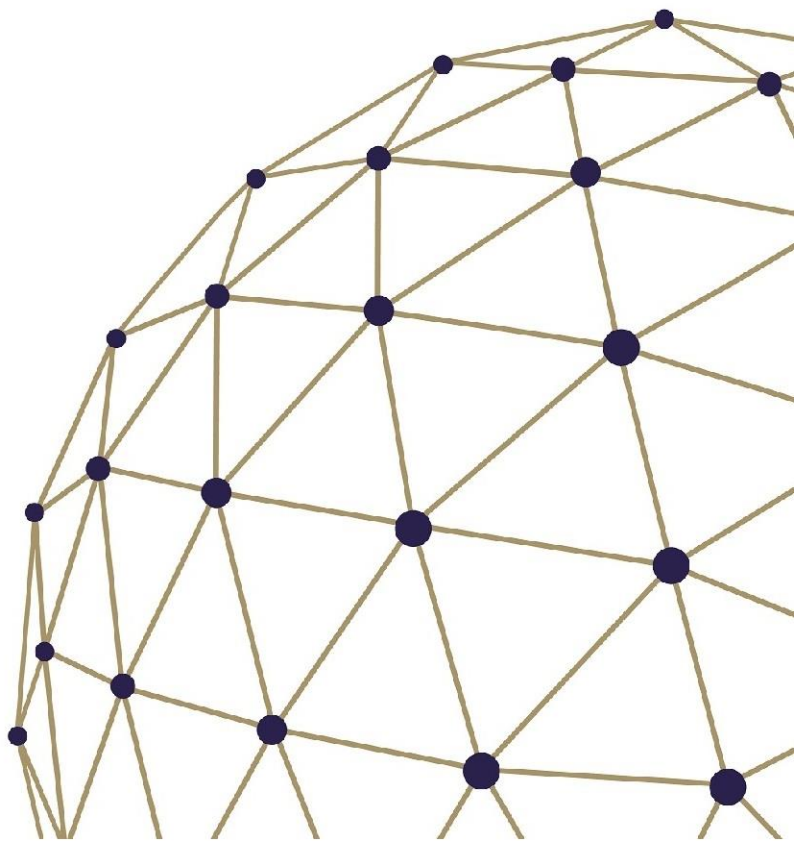




Macroeconomic and financial market developments

September 2017

Background material
to the abridged minutes of the
Monetary Council meeting
of 19 September 2017



Time of publication: 2 p.m. on 4 October 2017

The background material ‘Macroeconomic and financial market developments’ is based on information available until 15 September 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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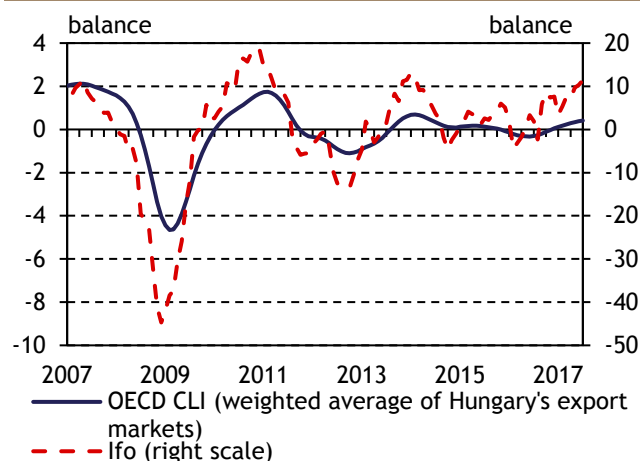
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1. MACROECONOMIC DEVELOPMENTS

1.1. Global macroeconomic environment

GDP figures for the second quarter of 2017 showed a positive picture overall. Germany – Hungary's most important trading partner – further expanded, and growth in the USA continued at a faster rate than in the previous quarter. The medium-term view on the European economic activity has improved in recent months.

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



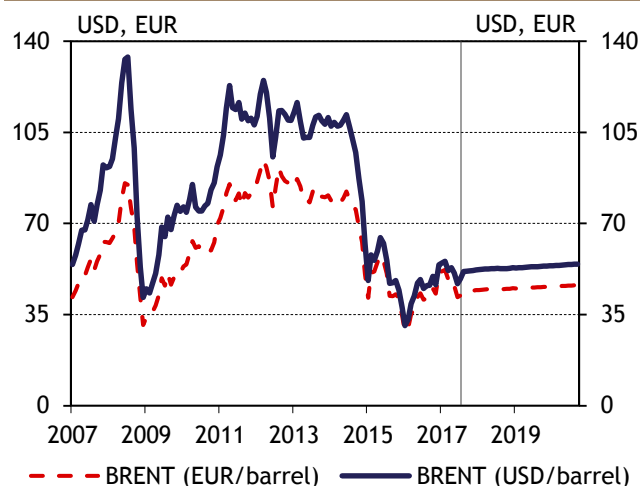
Source: OECD, Ifo

GDP figures for the second quarter of 2017 showed a positive picture overall. Based on seasonally adjusted data, the euro area economy registered a year-on-year growth rate of 2.3 per cent in the second quarter of 2017, while in quarter-on-quarter terms it was up 0.6 per cent. The German economy – Hungary's most important trading partner – further expanded, and economic growth in the USA continued at a faster rate than in the previous quarter. The medium-term view on the European economic activity is still favourable, which is also supported by the high level of the Purchasing Manager Index of the euro area and the Eurocoin indicator, capturing the underlying economic activity processes of the euro area. Overall, market expectations with respect to the economic growth of the euro area for 2017 have risen. The exit of the United Kingdom from the EU may still carry significant medium and long-term risks, the process of which is still surrounded by uncertainty as a result of the outcome of the British elections.

The **three-year stable growth of the German economy**, Hungary's most important export partner, **continued in the second quarter**. The performance of the German economy is still supported primarily by the buoyant domestic demand through the continued expansion in consumption and investments, while net exports made a negative contribution to the growth of the German GDP reflecting substantial growth in imports. New German industrial orders and the sub-index of the Ifo index reflecting business expectations that capture the outlooks of German industrial production were favourable in recent months (Chart 1).

Inflationary pressure from the world market remained moderate and carries downside risks. Based on the preliminary data release, the euro area inflation slightly increased in August. Underlying processes continue to develop moderately. The ECB once again revised its inflation forecast downward. Oil price in August was around USD 51 on average (Chart 2). The oil price developments were primarily influenced by the news on US production and the compliance of the production-cut agreement introduced by OPEC, as well as by the negative market sentiment generated by the tensions between the USA and North Korea. World market prices of industrial

Chart 2: Brent crude oil world market prices



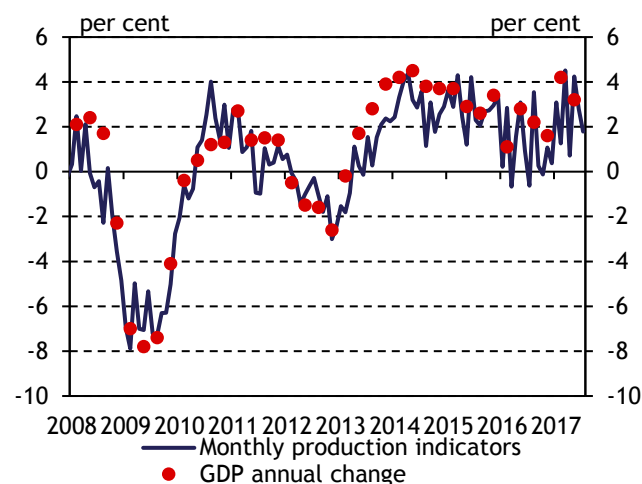
Source: Bloomberg

commodities increased, while those of unprocessed food moderately declined in August.

1.2. Domestic real economy developments

According to the HCSO's data release, in 2017 Q2 Hungary's GDP grew by 3.2 per cent year on year. The unemployment rate stood at 4.2 per cent in July. Private sector employment continued to increase similarly to the previous months.

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

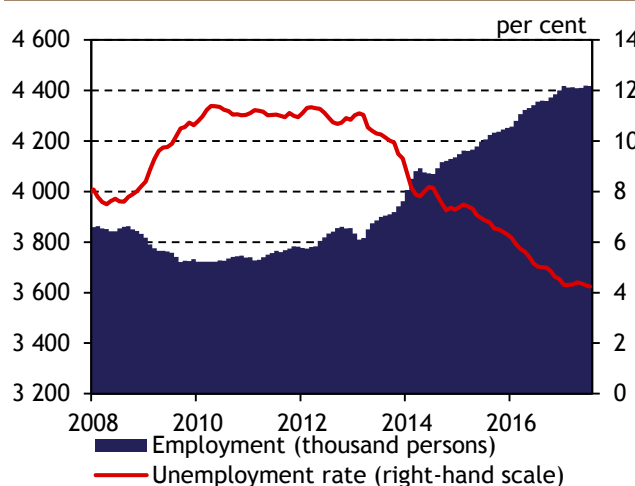
1.2.1. Economic growth

Based on the data release by the HCSO, in the second quarter of 2017 Hungary's GDP grew at a rate of 3.2 per cent year on year, which was in line with the MNB's expectations. Based on the seasonally adjusted data, Hungary's GDP rose by 0.9 per cent quarter on quarter. Market services contributed to the growth to the largest degree.

Based on the data release by the HCSO, in the second quarter of 2017 expansion in investments and consumption supported growth to the largest degree on the expenditure side. The growth in retail sales volume continued at a faster rate than in the previous quarter (Chart 3). In parallel with the decelerating export dynamics, net exports made a negative contribution to the growth of the Hungarian economy. On the output side, market services contributed to the growth to the largest degree, but the contribution of construction and industry was also significant. The growth in industrial output in the second quarter was primarily attributable to the expansion in manufacturing, supported by a wide range of subsectors. Construction output significantly increased, reflecting the start-up of projects implemented using EU funds, as well as business investments (construction of industrial buildings and warehouses).

In July 2017, the volume of industrial output was up 0.2 per cent year on year, while on a seasonally adjusted basis it fell by 4.2 per cent compared to the previous month. The dynamics, excluding the working-day effect, corresponds to the raw figure. The output of vehicle manufacturing, representing a high weight, declined, which is partly attributable to the summer outage differing from that in the base year. The other engineering subsectors, as well as food and metal industry, materially rose year on year. **On the whole, forward-looking indicators reflect a positive picture with regard to the outlooks of the domestic industry.**

Based on preliminary data, the **value of goods exports and imports increased by 5.2 per cent and 11 per cent, respectively, year on year in euro terms**, in July 2017, thus the trade surplus was down by EUR 359 million compared to last July. In June 2017, the terms of trade moderately improved. The relative price of mineral fuels and food

Chart 4: Number of persons employed and the unemployment rate

Source: HCSO

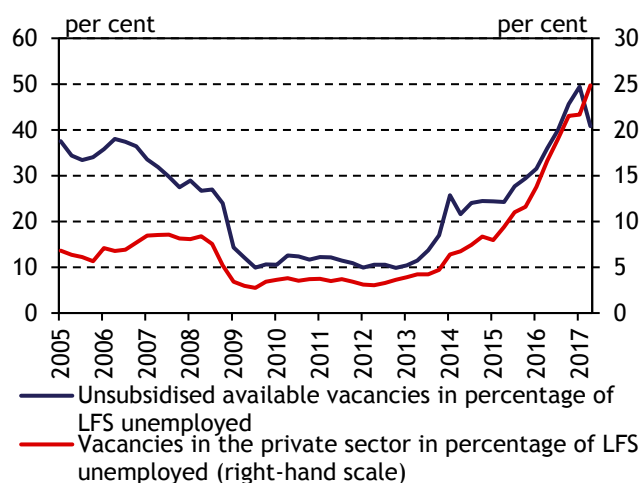
deteriorated, which was offset by the relative price change of chemical goods and machinery.

In July 2017, **the volume of construction output was up 22.7 per cent year on year**, while output decreased by 2.1 per cent compared to the previous month. Output increased significantly in the case of buildings and other structures. The volume of concluded new contracts increased by 3.8 per cent, while the month-end volume of construction companies' contract portfolio was up 83.7 per cent year on year.

1.2.2. Employment

According to the Labour Force Survey data **in July 2017 growth in employment continued**. Unemployment rate stood at **4.2 per cent**, representing a decrease compared to the previous quarter (Chart 4). The number of public workers declined, while the labour force participation rate is at its historic high.

The labour market is still historically tight according to the tightness indicators calculated from the various statistics (Chart 5). According to the data released by the National Employment Service (NES) in July 2017, the number of non-subsidised vacancies indicating corporate labour demand was around 17 thousand, similarly as in recent months, while the month-end number of vacant non-subsidised jobs, indicating the matching the of labour demand and supply structure, increased.

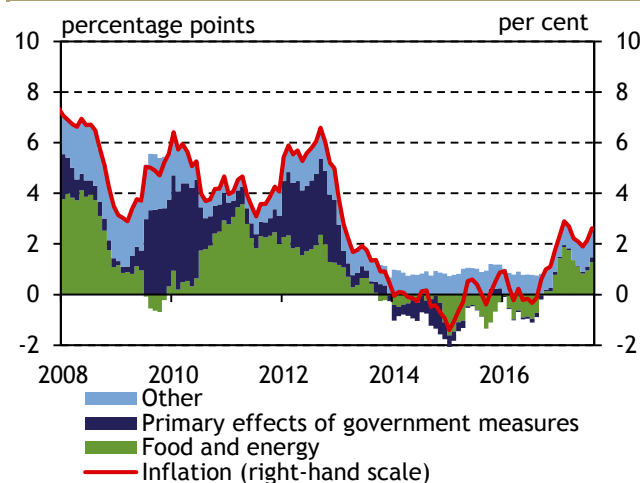
Chart 5: Indicators of labour market tightness

Source: National Employment Service, HCSO

1.3. Inflation and wages

In August 2017, year-on-year inflation was 2.6 per cent, while core inflation and core inflation excluding indirect taxes stood at 2.8 and 2.4 per cent, respectively. Underlying inflation indicators moderately rose compared to the previous month, being around 2.0 per cent, which still materially falls short of the core inflation. In June 2017, private sector gross average wage rose by 13.5 per cent year on year due to the historically tight labour market environment and the significant pass-through effect of the high minimum wage and the guaranteed wage minimum raise. Bonus payments in June were substantially higher than those recorded last year.

Chart 6: Decomposition of inflation



Source: MNB calculation based on HCSO data

1.3.1. Wage setting

In June 2017, private sector gross average wages rose by 13.5 per cent, while regular wages were up 12.3 per cent year on year. In the private sector, the growth of both the gross average wages and the regular wages accelerated compared to May. Regular wages developed in line with the usual seasonality of June on a monthly basis. **Bonus payments in June were substantially higher than those recorded last year,** which was significantly influenced by the bonus payments by a few outstanding subsectors within market services. **Strong wage dynamics is still explained by the historically tight labour market environment and the significant pass-through effect of the high minimum wage and the guaranteed wage minimum raise.**

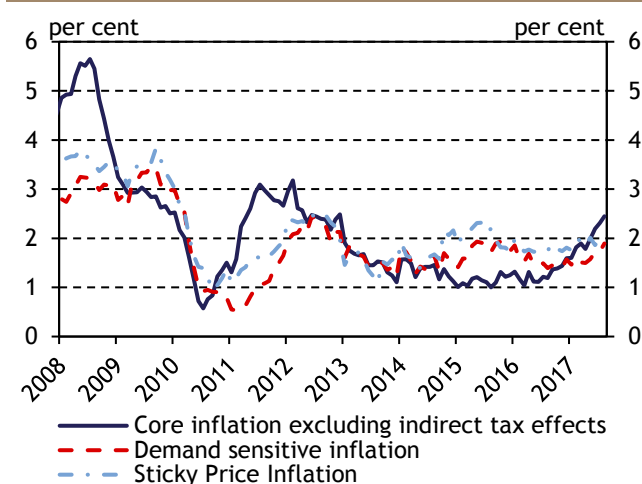
1.3.2. Inflation developments

In August 2017, year-on-year inflation was 2.6 per cent, while core inflation and core inflation excluding indirect taxes stood at 2.8 and 2.4 per cent, respectively (Chart 6). Relative to the previous month, inflation and core inflation rose by 0.5 and 0.2 percentage point, respectively. The rise in inflation was primarily attributable to the growth in the price index of fuels, mostly resulting from the base effect. The rise in core inflation was primarily attributable to the growth in the tradables inflation due to the base effect, as well as to the increase in the price index of alcohol and tobacco products. The price increase of tobacco products was mostly caused by the increase of the excise duty, effective from July 2017.

Underlying inflation indicators moderately rose compared to the previous month, being around 2.0 per cent, which still materially falls short of the core inflation (Chart 7). In addition to the low level of imported inflation and inflation expectations, moderate commodity prices also contribute to this. In July 2017, agricultural producer prices rose by 3.0 per cent in annual terms, while the domestic sales prices of the consumer goods sectors increased by 5.1 per cent.

According to our current forecast, in the coming months inflation will be around 2.5 per cent, followed by a slowdown close to 2 per cent at year-end. Inflation will reach the 3 per cent target sustainably by mid-2019.

Chart 7: Measures of underlying inflation indicators

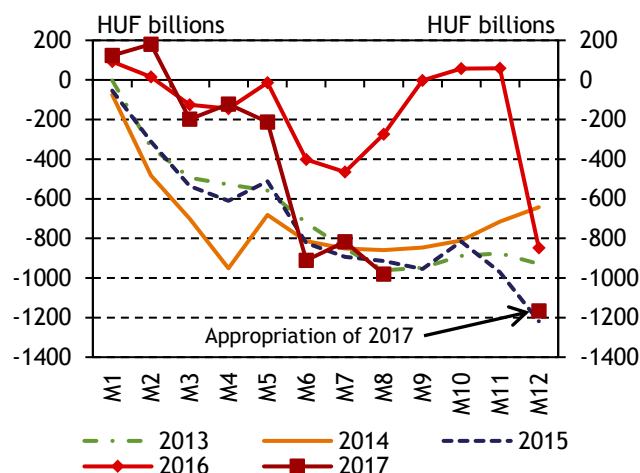


Source: MNB calculation based on HCSO data

1.4. Fiscal developments

The central sub-sector of the central government closed with a deficit of HUF 163 billion in August 2017, thus the cumulative balance of the current year was HUF -980 billion at the end of the eighth month. The monthly deficit in August was higher compared to previous years, while the cumulative cash balance in the first eight months of the year – excluding last year – developed in a manner typical of previous years.

Chart 8: Intra-year cumulative cash balance of the central government budget



Source: MNB calculation based on HCSO data

The central sub-sector of the central government closed with a deficit of HUF 163 billion in August 2017, thus the cumulative balance of the current year was HUF -980 billion at the end of the eighth month (Chart 8). The monthly deficit in August was higher compared to previous years, while the cumulative cash balance in the first eight months of the year – excluding last year – developed in a manner typical of previous years.

The **revenues of the central sub-sector** in August 2017 were up by HUF 46 billion year on year. The budget realised a growth both in personal income tax and consumption tax, which was partially offset by a year-on-year decrease in the income received from enterprises.

The expenditures of the central sub-sector in August 2017 were up by HUF 399 billion year on year. The significant growth was primarily attributable to the increase in the central budgetary institutions' own and EU transfer-related net expenditures, compared to the extremely low base of last year.

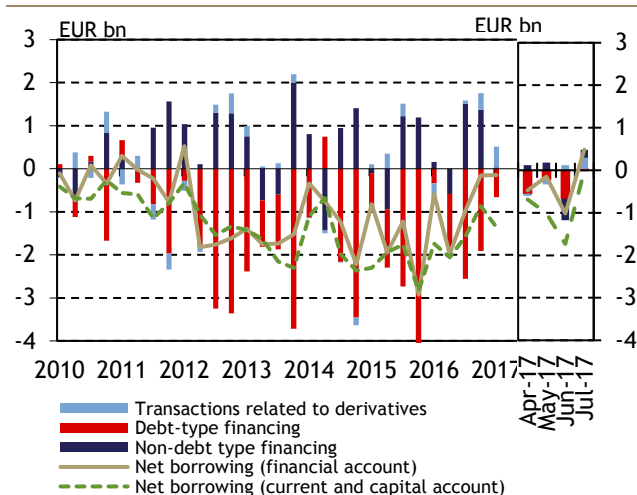
According to the MNB's preliminary financial accounts statistics published in August, in the first half-year, the general government accumulated a surplus of HUF 210 billion. Thus, in the first half of 2017, a significant difference developed between the central sub-sector's cash-based and the general government net borrowing, caused by several factors. The pre-financing of the EU transfers increased the cash-based deficit of the central sub-sector, but it had only a minor effect on the accrual-based deficit. Certain taxes were affected by major accrual-based adjustments. In the case of interest expenditures, the difference appears in the timing of the accounting. In the end, the local government sector closed the first half-year with a substantial surplus.

At the end of 2017 Q2 the gross government debt as a per cent of GDP was 74 per cent.

1.5. External balance developments

In July, after the exceptionally high level recorded in the previous month, net lending of the economy declined substantially (by roughly EUR 1.7 billion), falling close to zero. The substantial decline in the external balance position was contributed to by the decrease of trade surplus and the absorption of EU transfers to an almost equal degree. The major surplus in the balance of goods observed in the previous month changed to a deficit in July, which may be linked with the major decline in vehicle manufacturing in July, attributable to the summer outages, which commenced earlier than last year.

Chart 9: Structure of net lending (unadjusted transactions)



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

Source: MNB

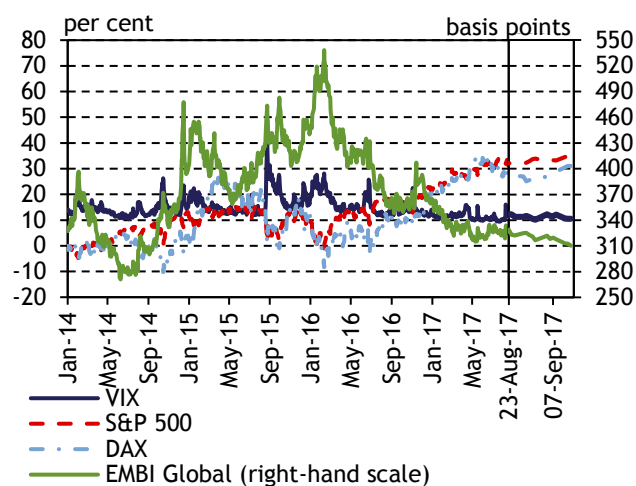
Net lending of the economy decreased also according to the financial account processes, to a similar degree as observed on the real economy side: the inflow of almost EUR 0.5 billion was mostly linked with the increase in foreign direct investment. In July, foreign direct investment rose by more than EUR 0.3 billion, which was attributable to a larger increase in reinvested earnings, while enterprises continued to reduce their intercompany loans. In July, the decrease in net external debt halted, which took place under lower net borrowing by the government and a net decrease in banks' funds in a similar amount. The increase in the general government's net external debt was mainly linked with – due to the decline in receivables – the fall in the banks' currency deposits placed with the MNB, but the purchase of government securities by non-residents in a lower amount also contributed to it. The maturing foreign currency bond had no influence on the general government's net borrowing, but it reduced the gross external debt. The decrease in banks' net external debt is attributable to a larger increase in receivables, which was also contributed to by the decline in currency deposits placed with the MNB. No material change occurred in the net external debt of corporations in July.

2. FINANCIAL MARKETS

2.1. International financial markets

Apart from a minor, temporary deterioration in sentiment, in the period since the last interest rate decision willingness to take risks continued to strengthen in the global financial markets. As a result, several stock market indices reached a new historic high. The improvement in investor sentiment was supported, in addition to the favourable macroeconomic figures, by the postponed market expectations with regard to the commencement of the tightening of the monetary policy by the ECB. The temporary deterioration in sentiment can be linked with the intensification of the geopolitical tensions between the developed world and North Korea, as well as the natural disasters that hit the Caribbean islands and the southern states of the United States. As a result of the latter, the price of the WTI crude oil rose at a slower rate than that of the Brent crude oil. The developed currencies' market was dominated by the general depreciation of the dollar and the general appreciation of the euro. The euro appreciated by almost 1 per cent against the dollar.

Chart 10: Developed market equity indices, the VIX index (left-hand scale) and the EMBI Global Index (right-hand scale)



Source: Bloomberg

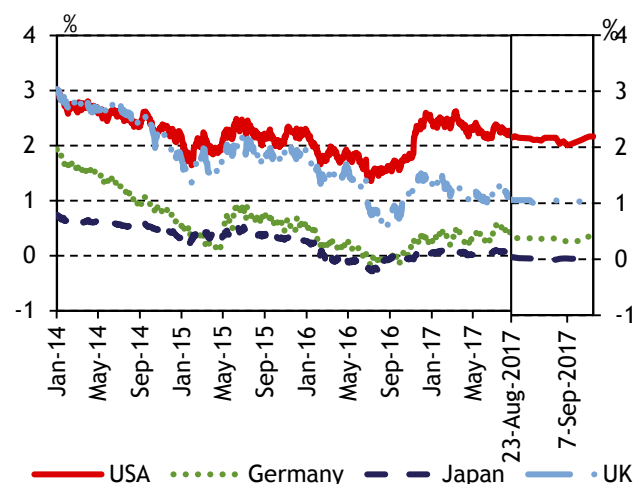
Apart from a minor, temporary faltering, in the period since the last interest rate decision willingness to take risks continued to strengthen in the global financial markets.

This is evidenced by the fact that most of the key global risk indicators were able to decrease, and in parallel with this demand for risky assets remained strong. Several stock indices reached historic highs or levels unprecedented for years. The improvement in investor sentiment was supported, in addition to the macroeconomic figures, by the postponed market expectations with regard to the commencement of the tightening of the monetary policy by the ECB. The temporary deterioration in sentiment was caused by the intensification of the geopolitical tension between the developed world and North Korea, as well as by the natural disasters that caused substantial damage to property and reduced the capacity of the oil refineries in the United States.

Developed and emerging market stock exchange indices reached new historic highs. During the period under review, equity markets were characterised by a rise of 2 to 4 per cent. The World Index of MSCI, covering developed markets and measuring the Asia-Pacific region without Japan, rose to a historic high, while the index regarded as a benchmark for emerging markets (the MSCI EM Index) reached record levels unprecedented since 2011. In the United States both the S&P 500 and the DJI reached record highs (Chart 10). In the Western European markets, in parallel with the rallying of DAX by almost 4 per cent, the other key stock exchange indices also rose; the broad European Stoxx Europe 600 index registered a growth of almost 2 per cent during the period under review. Meanwhile, the VIX – interpreted as a global risk indicator – and similar volatility indices were able to decline.

Most of the developed market long-term bond yields, together with the emerging market spreads, dropped. In the case of the EMBI Global spread, representing emerging markets, a decline of 14 basis points was observed as a result

Chart 11: Yields on developed market long-term bonds



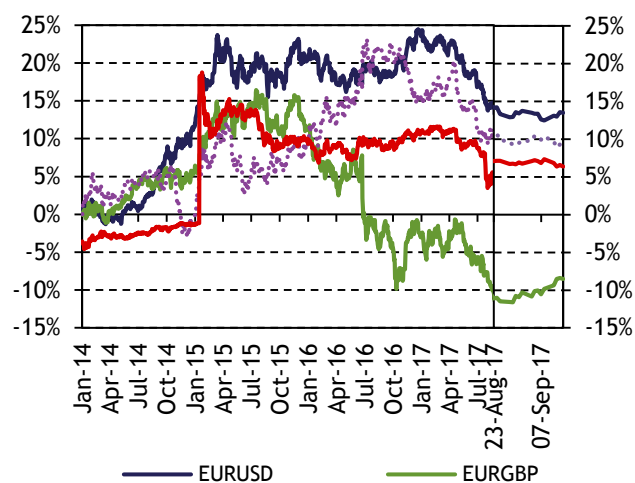
Source: Bloomberg

of the improving risk appetite (Chart 10). The US 10-year Treasury yield dropped by 2.5 basis points, while the German and Japanese long-term yields decreased more moderately, by roughly 1 basis point (Chart 11). In parallel with this the British yield curve shifted upwards as a result of the strengthening interest rate increase expectations in the wake of the surprising inflation figures of August. Local currency long-term government securities' yield in most of the emerging countries decreased, with this trend also dominated the narrower region.

Crude oil prices were up in parallel with the widening of the Brent-WTI spread. On the whole, **the price of both the Brent and WTI crude oil was able to rise during the last 4 weeks, by almost 7 and 3 per cent, respectively.** The general increase is attributable to the strengthening demand, also supported by the latest forecast of the International Energy Agency, where it raised its global demand growth forecast by 100,000 barrels to 1.6 million barrels per day. The capacity decrease of the US crude oil refineries impacted by the Harvey hurricane may have made a major contribution to the slower rise in the WTI crude oil. The OPEC member states will continue to have a key role in restoring the global oil demand and supply equilibrium; the news that leaked out from the consultations preceding the November meeting are about the extension of the production adjustment, originally planned by the oil cartel until March 2018, by at least 3 months.

The ECB have not changed its monetary policy, and market expectations related to the commencement of tightening were somewhat postponed during the summer. At its September rate-setting meeting, the ECB, in accordance with the expectations, did not change its monetary policy conditions and the decision-making body did not discuss the phase-out of the asset purchase programme either. According to the latest surveys of economists, the communication related to the phase-out of the quantitative easing can be expected in October. The timing expected by the market was postponed gradually during the summer, which was supported by the fact – in addition to the data that continue to imply depressed inflation processes – that during the Jackson Hole symposium Mario Draghi made no comment whatsoever with regard to the anticipated monetary policy changes. The Fed decision-makers will convene for the next time on 20 September; however, based on the market pricing, no further interest rate increase can be expected this year, which is also suggested by the less strict tone of the FOMC declarations made recently. On the other hand, according to the surveys, there is a good chance for a change in the reinvestment policy affecting the assets in the Fed balance sheet. At the same time, market

Chart 12: Developed market FX exchange rates



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

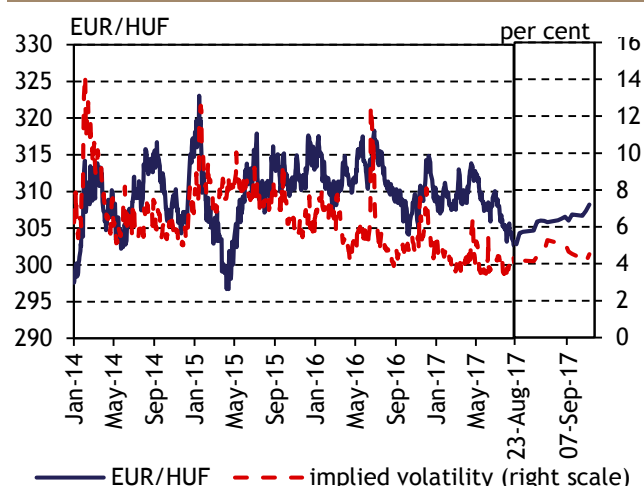
Source: Reuters

participants expect the British central bank to make a shift to a stricter forward guidance, which was mostly caused by the positively surprising inflation figures. As regards the key cross rates in the foreign exchange market, the general depreciation of the dollar and the general appreciation of the euro was the typical trend, and only the British pound was unable to appreciate against all currencies. The euro/dollar exchange rate rose by almost 1 per cent by the end of the period under review, but the quotes closed above the level of 1.20 several times, thereby the common European currency equalling a record of 2.5 years (Chart 12). On the other hand, the British pound appreciated against the dollar to levels unseen for 1 year.

2.2. Developments in domestic money market indicators

The forint exchange rate depreciated 1.5 per cent against the euro, which means that it underperformed even the currencies of the region. The steepness of the government securities market yield curve declined, as in addition to the moderate decrease in short-term yields, the medium and longer section of the yield curve decreased to a larger degree, by 15-30 basis points. The 3-month BUBOR dropped to 0.12 per cent. Non-residents' forint government securities holding rose by more than HUF 100 billion, thus their share came close to 23.5 per cent. Amidst the generally improving global sentiment, the Hungarian CDS spread decreased by 3 basis points to 94 basis points.

Chart 13: EUR/HUF exchange rate and the implied volatility of exchange rate expectations

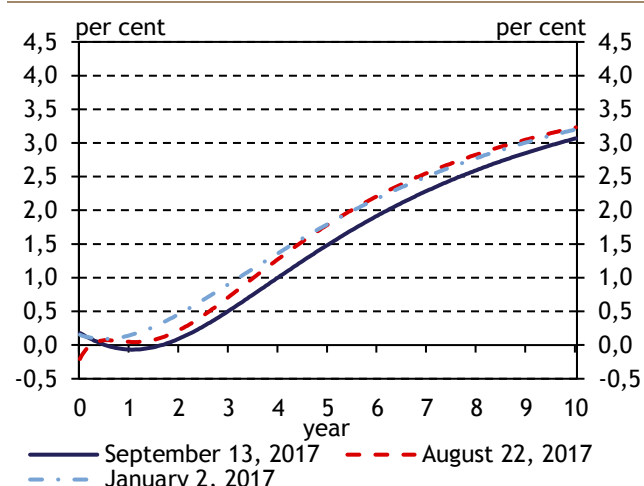


Source: Bloomberg

During the period under review, the forint depreciated by 1.5 per cent against the euro. During the period, it fluctuated in the relatively broad range of 302.5 and 308. The Hungarian currency closed the period at the level of 308, and it depreciated against the currencies of the region as well, since the Czech koruna, the Polish zloty and the Romanian leu depreciated against the euro only to a small degree, by 0.1–0.4 per cent (Chart 13). The currencies of the region, with the exception of the forint, appreciated against the dollar by 0.2-0.6 per cent, while the forint depreciated by 1 per cent.

The government securities market yield became less steep: the short-term section of the yield curve moved 3 to 10 basis points down, while the medium and long end of the curve decreased by a larger degree than that, by 15-30 basis points (Chart 14). The decrease in the secondary market long-term yield outstripped the changes recorded in the region: the Polish ten-year yield dropped by 12 basis points, the Romanian one stagnated, while the Czech yields, breaking away from the region, rose by 10 basis point as a result of the interest rate increase expectations in the Czech Republic.

Chart 14: Shifts in the spot government bond yield curve



Source: MNB, Reuters

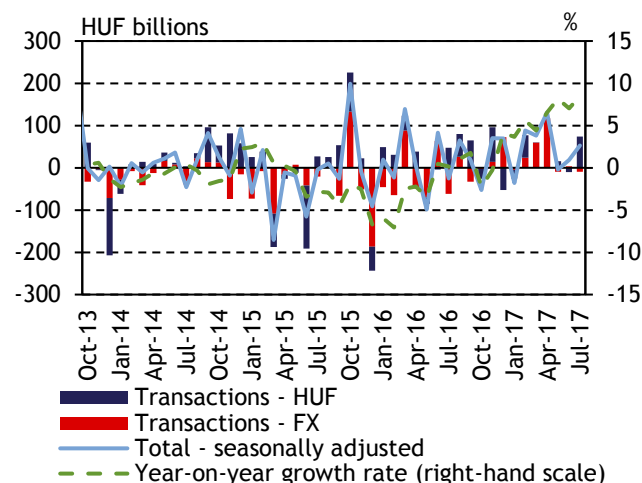
During the period, the government bond auctions were characterised by strong demand. In the case of 3-month discount Treasury bill auctions the bid-to-cover ratio was 2 to 3-fold, while average yields dropped compared to the period before the previous interest rate decision, and were around -0.02 per cent in the second half of the period. As regards the 12-month discount Treasury bill, demand was also sufficient and the average yield dropped by 6 basis points to 0.03 per cent. At the auctions of the long-term government securities, outstanding demand was shown primarily for the fixed and floating 5-year bonds, as a result of which the Government Debt Management Agency raised the volume of accepted offers in all cases. Demand for 3- and 10-year bonds was also strong; the average yield at the auctions dropped by 25-27 basis points compared to the earlier level, thus it was generally at the level of 0.55 and 2.85 per cent, respectively.

The stock of Hungarian forint-denominated government securities held by non-residents rose by roughly HUF 125 billion in the period, thus their holdings amounted to HUF 3,555 billion at the end of the period. Their share in forint government securities increased moderately, to 23.4 per cent. In the volatile, but by the end of the period, improving global sentiment, the Hungarian 5-year CDS spread decreased by 3 basis points, standing at present at 94 basis points, which was in line with the regional trends.

3. TRENDS IN LENDING

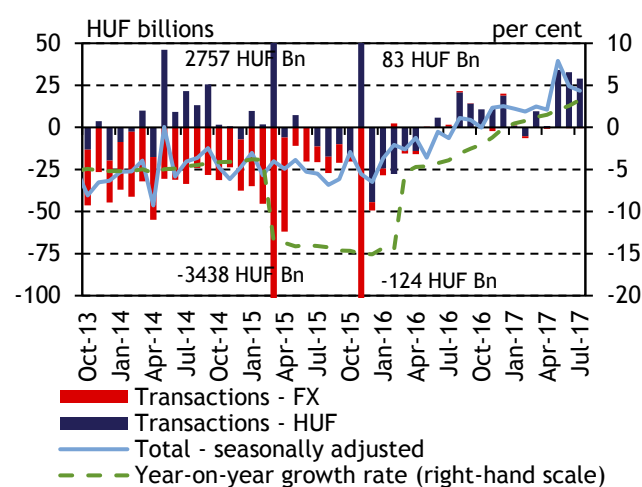
In July, the outstanding corporate loans of credit institutions rose by HUF 64 billion as a result of transactions. The outstanding loans of the credit institutions to households rose by HUF 29 billion in total as the combined balance of disbursements and repayments, thus at the end of July the annual growth in outstanding lending was 3.3 per cent. The smoothed interest rate spread of forint corporate loans rose slightly, by 0.1 percentage point and stood at 2.4 percentage points in July.

Chart 15: Net borrowing by non-financial corporations



Source: MNB

Chart 16: Net borrowing by households

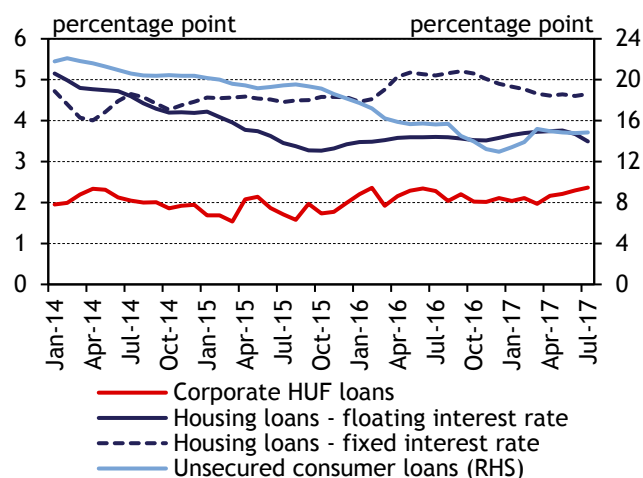


Source: MNB

In July, the outstanding corporate loans of credit institutions rose by HUF 64 billion due to transactions, which is equivalent to an increase of HUF 53 billion on a seasonally adjusted basis (Chart 15). In a breakdown by currency, forint loans increased by HUF 74 billion, while foreign currency loans decreased by HUF 10 billion. In July 2017, corporate lending rose by 8.5 per cent in annual terms. Excluding money market transactions, the volume of new loans amounted to HUF 234 billion during the month. The gross amount of new loans in July was up 29 per cent in annual terms.

The outstanding loans of the credit institutions to households rose by HUF 29 billion in total as the combined balance of disbursements and repayments, thus at the end of July the annual growth in outstanding lending was 3.3 per cent. (Chart 16). The value of new contracts concluded during the month was HUF 147 billion, thus in annual terms it registered a growth of 51 per cent. As regards the individual sub-segments, the volume of new housing loans and personal loans rose by 34 and 50 per cent, respectively.

Chart 17: Development of corporate and household credit spreads



Note: Three-month smoothed spreads on the APR. In the case of corporate forint loans the 3-month BUBOR. In the case of variable-rate or for up to one year fixed-rate housing loans 3-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 spread of forint corporate loans rose slightly, by 0.1 percentage point and stood at 2.4 percentage points in July (Chart 17). However, small-amount market loan spreads – typically taken by SMEs – still exceeds the average of the other Visegrád countries by 1 percentage point. The average interest rate spread on housing loans to households calculated using the annual percentage rate (APR) still stands at 4.7 percentage points, which can be considered high in international comparison. The spread on unsecured consumer loans to households stood at 14.9 percentage point in July. The problem of high spreads affects primarily the market of long-term fixed-rate transactions. Credit institutions may apply for the Certified Customer Friendly Mortgage certification from 1 June 2017. In July, based on the MNB's decision, several banks started the marketing of these products.