MAGYAR NEMZETI BANK

Macroeconomic and financial market developments

October 2017

Background material
to the abridged minutes of the
Monetary Council meeting
of 24 October 2017

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The background material 'Macroeconomic and financial market developments' is based on information available until 19 October 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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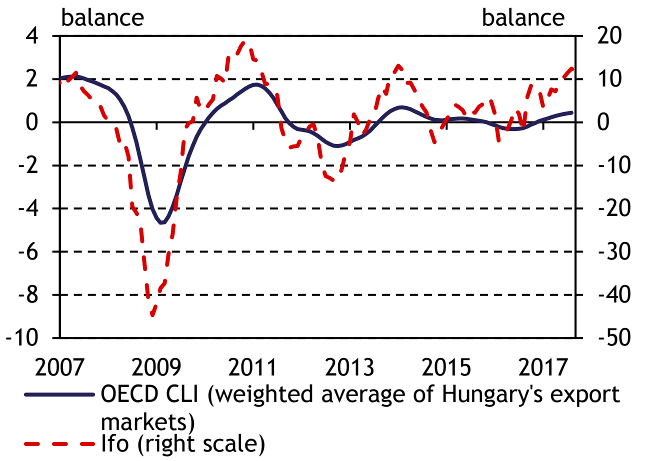
1. MACROECONOMIC DEVELOPMENTS

1.1. Global macroeconomic environment

GDP figures for the second quarter of 2017 showed a positive picture overall. The buoyant European economic activity may persist in the coming quarters as well, supported both by the incoming monthly data and the high confidence indices. Economic growth in Germany – Hungary's most important trading partner – may continue at a stable rate. Expectations with regard to economic growth in the euro area shifted upwards in the past period.

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

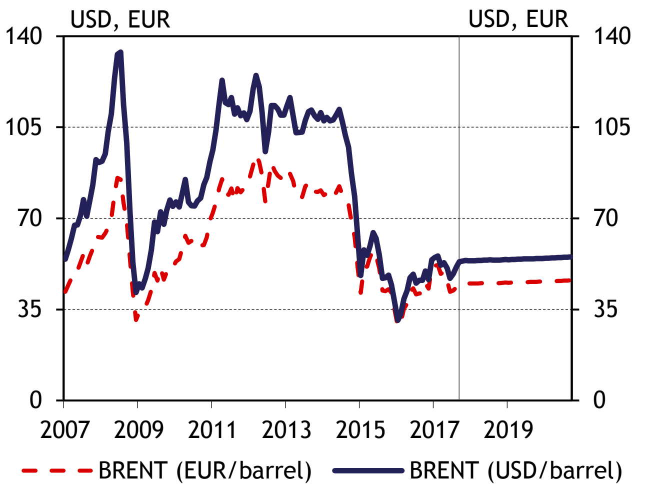


Source: OECD, Ifo

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 growth in the USA continued at a faster rate than in the previous quarter. The buoyant European economic activity may persist in the coming quarters as well, supported both by the incoming production data and the high level of the confidence indices. Overall, in the past months industrial production accelerated in the European Union, while the growth in retail sales volume continued at a steady rate. The Eurocoin indicator, capturing the underlying economic activity processes of the euro area, rose in the past months, while the Purchasing Manager Index of the euro area was close to its historic high. In the past period, there was an upward shift in the expectations with respect to the economic growth of the euro area; however, the exit of the United Kingdom from the EU may still carry medium and long-term risks.

The **three-year stable growth of the German economy**, Hungary's most important export partner, **continued in the second quarter**, still supported primarily by the buoyant domestic demand. The performance of the German economy outstripped the expectations in the past period. The German industrial production and new orders both continued to rise in August, and the Ifo index, capturing the outlooks of the German industry, remained at a favourable level (Chart 1).

Chart 2: Brent crude oil world market prices



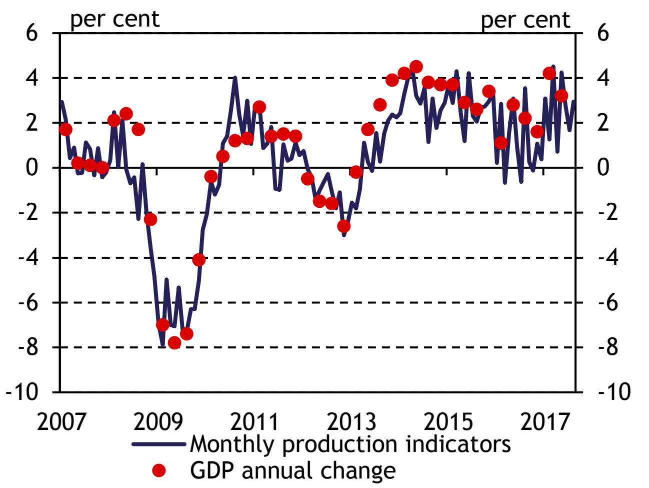
Source: Bloomberg

Inflationary pressure from the world market is still moderate and carries downside risks. Based on the preliminary data release, the euro area inflation has not changed in September compared to the previous month. Underlying processes continue to develop moderately. In September, the oil price fluctuated between USD 53 and 60 (Chart 2); prices were primarily influenced by the hurricanes that hit the south of the United States and the news on the production adjustment by OPEC. World market prices of industrial commodities moderately increased, while those of unprocessed food remained essentially unchanged in September.

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. Based on the received activity data, the growth of the Hungarian economy may have continued in the third quarter as well. The unemployment rate stood at 4.2 per cent in August. 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

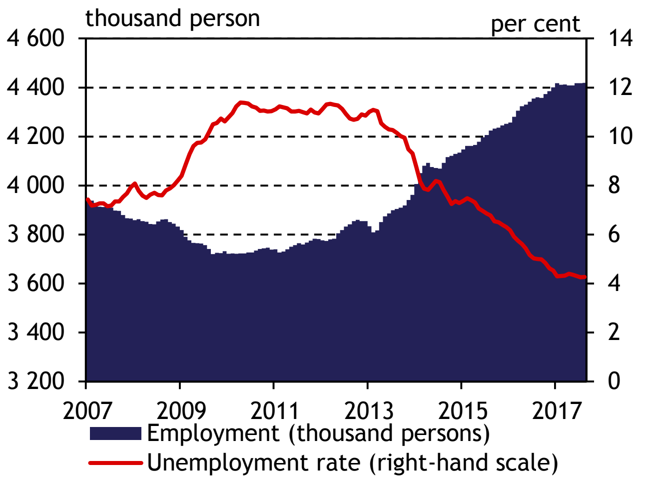
Based on the data release by the HCSO, in the second quarter of 2017 Hungary's GDP grew at a rate of 3.2 per cent year on year, which was in line with the MNB's expectations. Based on the seasonally adjusted data, Hungary's GDP rose by 0.9 per cent quarter on quarter. Growth on the expenditure side was supported to the largest degree by investments, in addition to consumption, while net exports made a negative contribution to growth. On the output side, in addition to services, the performance of industry and construction made the largest contribution to economic growth.

The rise in GDP may continue in the third quarter, also supported by the available monthly production indicators (Chart 3). The growth in retail sales continued at a stable rate, accompanied by persisting dynamic rise in construction output. The rise in industrial production continued in the past months; the volatility in output was caused by the different scheduling of the summer outages compared to last year.

In August 2017, the volume of industrial output was up 6.8 per cent year on year, while it rose by 5.5 per cent compared to the previous month. The dynamics, excluding the working-day effect, corresponds to the raw figure. The industrial output growth was supported by a wide range of subsectors. The output of vehicle manufacturing, representing the highest weight, and of other engineering subsectors, chemical industry and food industry, all rose year on year. The volatility in the output of vehicle manufacturing, observed in July and August, was caused by the different scheduling of the summer outages compared to last year. **On the whole, forward-looking indicators reflect a positive picture with regard to the outlooks of the domestic industry.**

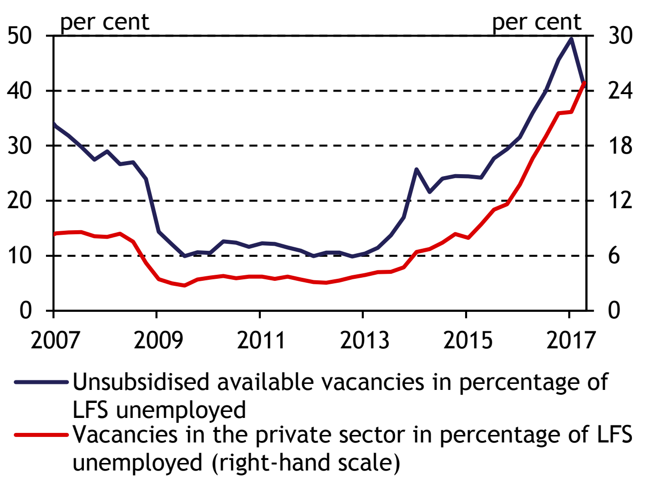
Based on preliminary data, **expressed in euro terms, the value of exports and imports increased by 10.3 per cent and 13.0 per cent, respectively, year on year** in August 2017, in line with the industrial production trends. The trade surplus was down by EUR 119 million from last August. In July 2017, the terms of trade has not changed year on year. The relative price of mineral fuels and food deteriorated, which was offset by the relative price change of chemical goods and machinery.

Chart 4: Number of persons employed and the unemployment rate



Source: HCSO

Chart 5: Indicators of labour market tightness



Source: National Employment Service, HCSO

In August 2017, the volume of construction output was up 36.8 per cent year on year, while output increased by 9.8 per cent compared to the previous month. **Output increased significantly in the case of buildings and other structures.** The substantial increase in the construction of buildings is primarily attributable to the construction of industrial and warehouse buildings, as well as educational and residential buildings. The volume of concluded new contracts increased by 46.0 per cent, while the month-end volume of construction companies' contract portfolio was up 89.7 per cent year on year.

In August, according to the preliminary data **retail sales volume was up 4.6 per cent year on year, based on both the raw data and the data adjusted for the calendar effect**. GDP was up 0.6 per cent compared to the previous month. As regards the structure of sales, in August turnover expanded in a wide range of products, primarily contributed to by a material growth in the turnover of non-food consumer durables, and the rise in food and fuel sales also continued.

1.2.2. Employment

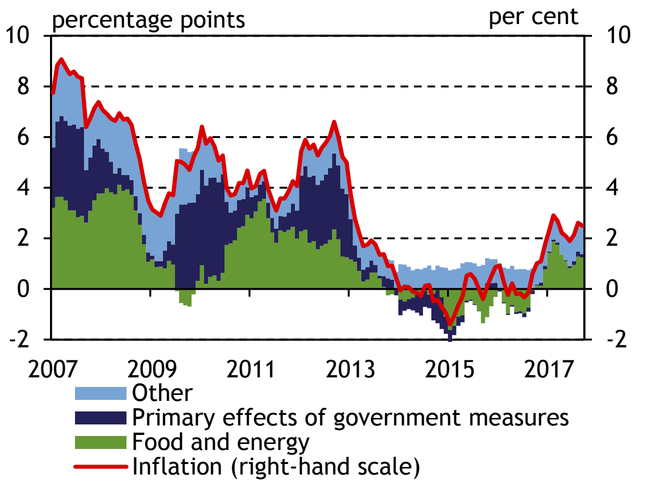
According to the Labour Force Survey data **in August 2017 growth in employment continued**. The level of unemployment was similar to the previous month, **unemployment rate stood at 4.2 per cent** (Chart 4). The labour force participation rate was at its historic high, while the number of public workers declined.

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 September 2017 the number of non-subsidised vacancies, indicating corporate labour demand, has not changed compared to the previous month. However, the month-end number of vacant non-subsidised jobs, indicating the matching of the labour demand and supply structure, was still high.

1.3. Inflation and wages

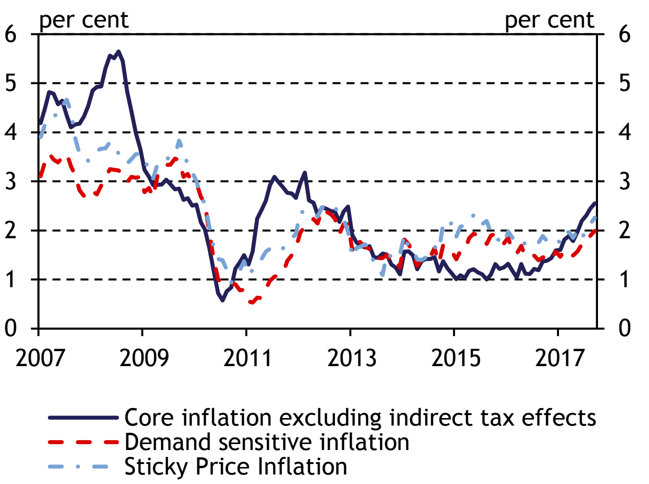
In September 2017, year-on-year inflation was 2.5 per cent, while core inflation and core inflation excluding indirect taxes stood at 2.9 and 2.6 per cent, respectively. Underlying inflation indicators moderately rose compared to the previous month, but they still materially fall short of the core inflation. In August 2017, private sector gross average wage rose by 11.5 per cent year on year due to the historically tight labour market environment and the significant increase in the minimum wage and the guaranteed wage minimum as well as their spillover effects. Current bonus payments were similar to those in last August.

Chart 6: Decomposition of inflation



Source: MNB calculation based on HCSO data

Chart 7: Measures of underlying inflation indicators



Source: MNB calculation based on HCSO data

1.3.1. Wage setting

In August 2017, gross average wages in the private sector rose by 11.5 per cent, while regular average wages were up 11.6 per cent **year on year**. In the private sector, the dynamics of both gross and regular average wages decelerated compared to July. The monthly change in the regular average wages was small, in line with the usual seasonality of August, while bonus payments corresponded to the degree observed last August. **In addition to the historically tight labour market environment, this year's two-digit wage growth is explained by** the wage adjustments affecting the government public service companies, **and the direct and significant spillover effect of the high minimum wage and guaranteed wage minimum raise at the beginning of the year.**

1.3.2. Inflation developments

In September 2017, year-on-year inflation was 2.5 per cent, while core inflation and core inflation excluding indirect taxes stood at 2.9 and 2.6 per cent, respectively (Chart 6). Inflation fell by 0.1 percentage point, while core inflation rose by 0.1 percentage point relative to the previous month. The decline in inflation was caused by the decrease in the price of unprocessed food and schoolbooks, belonging to the range of regulated price products.

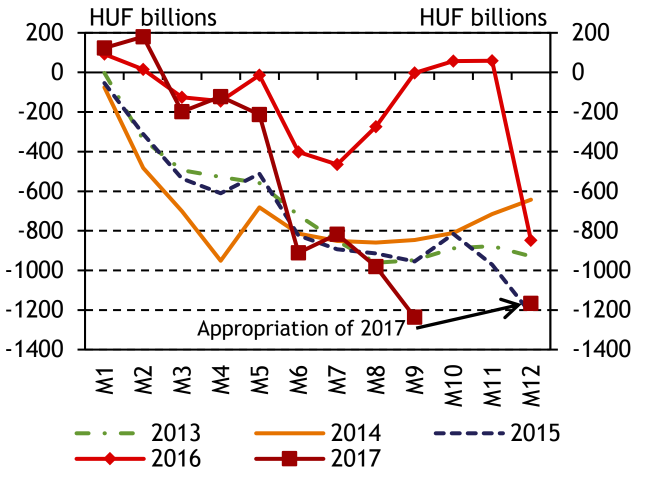
Underlying inflation indicators moderately rose compared to the previous month, but still materially fall short of the core inflation (Chart 7). The rise in core inflation in the previous period was caused primarily by the increase in milk prices and the raising of the tobacco excise tax, while industrial goods and market services are still characterised by moderate price developments. In August 2017, agricultural producer prices rose by 3.2 per cent in annual terms, while the domestic sales prices of the consumer goods sectors increased by 5.3 per cent.

According to our current forecast, in the coming months inflation will remain 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.

1.4. Fiscal developments

The central sub-sector of the general government closed with a historically high deficit of HUF 256 billion in September 2017. The cumulative balance of the current year amounted to HUF - 1,236 billion at the end of the ninth month.

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 general government closed with a deficit of HUF 256 billion in September 2017. This represents a historically high deficit, mostly attributable to the soaring in the expenditures of the central budgetary institutions. The cumulative balance of the current year amounted to HUF - 1,236 billion at the end of the ninth month. This deficit is the highest value of recent years, and it also exceeds the annual appropriation in the 2017 Budget Act (Chart 8).

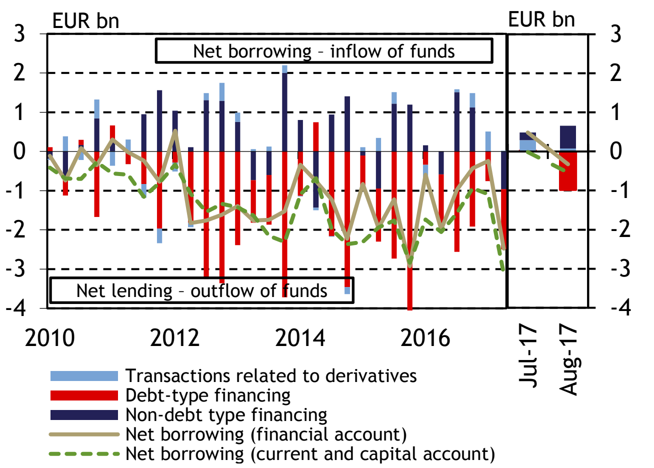
The **revenues of the central sub-sector** in September 2017 were down by HUF 101 billion year on year. The difference is attributable to the higher degree of VAT refunds.

The expenditures of the central sub-sector in September 2017 were up by HUF 426 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 low base of last year.

1.5. External balance developments

In August, net lending of the economy rose from the previous month's trough close to the annual average, which was fully attributable to the growth in EU transfers. The surplus in the balance of goods, after the minor deficit observed in the previous month, was low in August as well.

Chart 9: Structure of net lending (unadjusted transactions)



Source: MNB

In August, net lending of the economy rose from the previous month's trough close to the annual average, i.e. EUR 540 million (Chart 9). The rise in the net lending of the economy was fully attributable to the growth in EU transfers; the trade surplus linked with the surplus in the services balance was at a similar level as in the last month. The surplus in the balance of goods, after the minor deficit observed in the previous month, was low (around zero) in August as well, which may have been attributable to the summer outages in vehicle manufacturing.

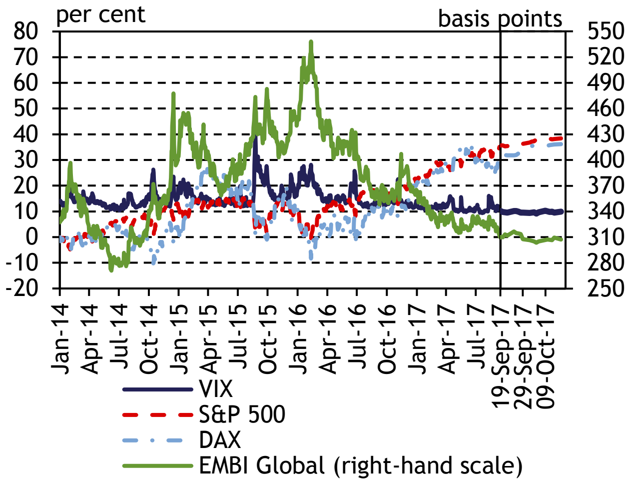
According to the financial account processes, net lending of the economy amounted to EUR 330 million, being the combined result of the major outflow of debt-type liabilities and the inflow of foreign direct investment. In August, net foreign direct investment rose by roughly EUR 500 million, which was mostly attributable to the reinvested earnings of foreign-owned companies. During the month, the net external debt of the economy decreased further by almost EUR 1 billion, contributed to by all three sectors. The decrease in the net external debt of the government is the combined result of the growth in the long-term forint government securities holding of non-residents, which is more than offset by the large-scale absorption of EU transfers, and a minor growth in foreign exchange reserves. In the case of the banking sector, the fall in external liabilities and the growth in external assets both pointed to a decline in external debt. Corporations continued to reduce their net external debt to a minor degree.

2. FINANCIAL MARKETS

2.1. International financial markets

In the period since the last interest rate decision investor sentiment was calm in the global financial markets, thus several stock market indices reached a new historic high. The willingness to take risks was mostly influenced by the expectations related to the monetary policy of the globally dominant central banks. In the case of the Fed, the key policy rate path expected by the market has not change materially, while it was announced in September that the gradual restriction on the reinvestment of maturing assets in the Fed balance sheet would commence in October. ECB is expected to maintain the accommodating monetary conditions and the market participants forecast the first interest rate increase to take place later than previously anticipated. Investors' perceptions about the Central and Eastern European region continued to be positive. Oil prices rose during the month, while the foreign exchange markets were dominated by the general appreciation of the dollar.

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



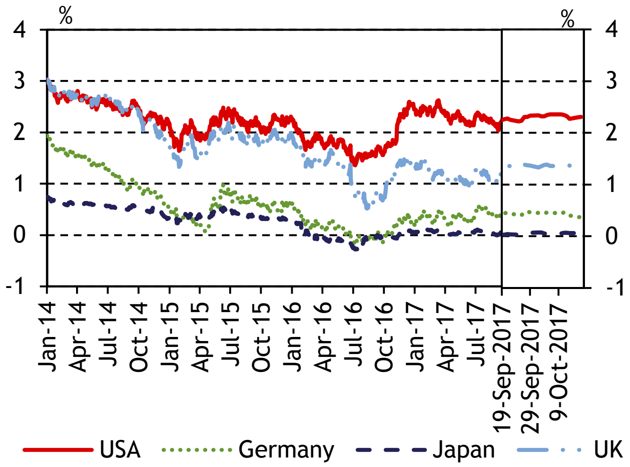
Source: Bloomberg

In the period since the last interest rate decision, investor sentiment in the global financial markets remained calm. The key risk indicators fluctuated at a low level during the period and in parallel with this, demand for risky assets also remained strong. Developed stock exchanges continued their rise, reaching new historic highs. The willingness to take risks was mostly influenced by the expectations related to the monetary policy of the globally dominant central banks. Oil prices rose by about 5 per cent, which was mostly attributable to the news on the potential prolongation of the OPEC agreement and to the Iraqi-Kurdish tensions.

Developed stock market indices reached new historic highs. During the period, the developed and emerging stock market indices typically rose by 2-4 per cent. In the United States, the S&P 500 crossed the level of 2,500 points by increasing 2 per cent, and the Dow Jones also reached a record high after a growth of 2.5 per cent. In the Western European markets, in parallel with the rallying of DAX by almost 3.5 per cent, the other key stock exchange indices also rose and the broad European Eurostoxx index registered a growth of 2 per cent during the period under review. The Spanish IBEX index was the only exception, which registered a minor, 2 per cent, decrease, due to the uncertainty related to the Catalan independence. The MSCI EM Index, regarded as one of the benchmark indices of the emerging markets, rose by 2 per cent, while the Nikkei in the Asian markets skyrocketed by 5 per cent. Meanwhile, the VIX index – interpreted as a global risk indicator – remained below 10 per cent, and the other key risk indicators also stagnated at a low level (Chart 10).

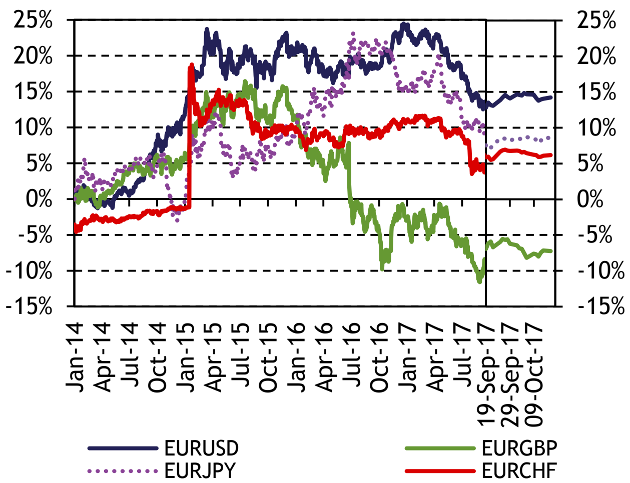
Developed countries' long-term bond yields diverged. The US 10-year Treasury yield rose by 6 basis points, while the German long-term yield fell by 8 basis points, which partially may have been attributable to the commencement of the gradual restriction on the reinvestment of maturing assets in the Fed balance sheet in

Chart 11: Yields on developed market long-term bonds



Source: Bloomberg

Chart 12: Developed market FX exchange rates



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

Source: Reuters

October. Japanese and British yields rose by 3 basis points and 1 basis point, respectively, while the peripheral euro area yields – similarly to the German one – dropped (Chart 11). Diverse movements could be observed in the narrower region as well; while the Hungarian and Polish long-term yield dropped, Czech and Romanian yields materially rose. In the case of the EMBI Global spread, representing emerging markets, a decline of 3 basis points was observed as a result of the persisting favourable risk appetite.

Oil prices continued to rise. On the whole, the price of both the Brent and the WTI crude oil rose by roughly 5 per cent in the past period. The general increase is attributable to several factors. On the one hand, according to the latest information on the extension of the production adjustment by OPEC, the production cut may be prolonged until as late as end of 2018 contrary to the originally planned date of mid-2018, and on the other hand, the deepening of the Iraqi-Kurdish conflict resulted in production stoppages in the northern part of Iraq. In addition, the tropical storms in the Gulf of Mexico, and the uncertainties in the Libyan and Nigerian domestic politics also led to stoppages in the oil sector. OPEC raised its world demand forecast for next year, which also had a price increasing effect.

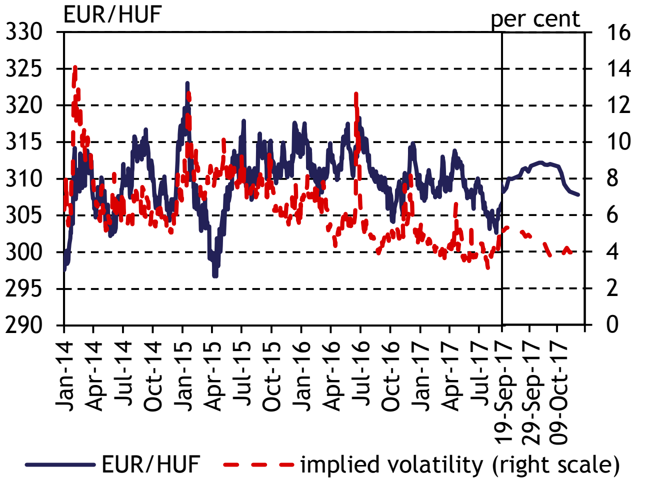
At its September meeting, Fed noted that in October it would commence the gradual restriction on reinvestment of maturing assets in the central bank balance sheet, as described simultaneously with the decision in June. According to this, from October the volume of reinvested assets will decrease by USD 10 billion and this amount will be increased by USD 10 billion every three months until such time as the monthly reduction reaches USD 50 billion. In parallel with this, the probability of an interest rate hike in December, priced in the market, rose from 52 to 84 per cent. The probability of an interest rate increase by the Bank of England in November also rose from 63 to 82 per cent, further strengthened by the increase in inflation to 3 per cent in September, thus the rate of the price increase already exceeds the central bank's inflation target by 1 percentage point. On the other hand, in the case of the ECB interest rate hike expectations decreased, as market pricing signals no interest rate increase until end-2018, which may be attributable to the market news about the moderately stricter, in terms of volume, but longer phase-out of the bond purchase programme. In the period under review, the foreign exchange market was dominated by the strengthening of the dollar, which appreciated against the euro by 1.6 per cent (Chart 12).

The European political processes were not accompanied by major turbulences in the money markets. CDU/CSU won the German elections. Analysts attach high probability to a “Jamaica” coalition with the liberal FDP and the Green Party. The Catalan independence referendum was followed by a temporary, modest response. Due to the dying-away of the conflict, negative effects were only moderate in the Spanish assets as well, thus the long-term Spanish yield stagnated during the period, while the peripheral euro area yields dropped by 2-12 basis points.

2.2. Developments in domestic money market indicators

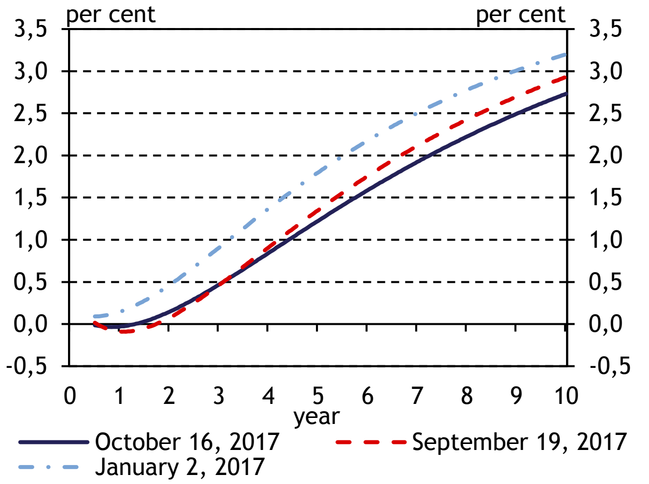
The forint exchange rate depreciated by 1 per cent in total during the two weeks after the interest rate decision, followed by an appreciation in line with the processes observed in the region, while its appreciation fell short of that of the currencies of the region. The steepness of the government securities market yield curve declined; the moderate increase in short-term yields was accompanied by a 5-25 basis points decrease in the medium and longer section of the yield curve. The 3-month BUBOR dropped to 0.03 per cent. Non-residents' forint government securities holding decreased by HUF 20 billion, thus their share is around 23 per cent. The Hungarian CDS spread stabilised in the band of 90-100 basis points.

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



Source: Bloomberg

Chart 14: Shifts in the spot government bond yield curve



Source: MNB, Reuters

During the period under review, the forint appreciated minimally, by 0.15 per cent, against the euro, although since the last interest rate decision it fluctuated in a slightly broader range, i.e. between 308 and 312. In the first two weeks after the September interest rate decision it depreciated, and then the trend turned around and the Hungarian currency, together with the currencies of the region, appreciated and closed the period at around 308 (Chart 13). The Czech koruna, the Polish zloty and Romanian leu appreciated against the euro by 0.3-1.2 per cent. The forint depreciated against the dollar by 1.5 per cent, while the currencies of the region weakened by 0.4-1.3 per cent.

The government yield curve became less steep: the short-term section of the yield curve shifted by 2-5 basis points up, while the medium and long end of the curve dropped by 5-25 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 8 basis points, the Romanian rose by 5 basis points, while the Czech yields, breaking away from the region, rose by 28 basis points as a result of the interest rate increase expectations in the Czech Republic.

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 -0.05 per cent in the second half of the period. As regards the 12-month discount Treasury bill, demand was also adequate and the average yield dropped by 9 basis points to 0 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 31-53 basis points compared to the earlier level, thus it was generally at the level of 0.51 and

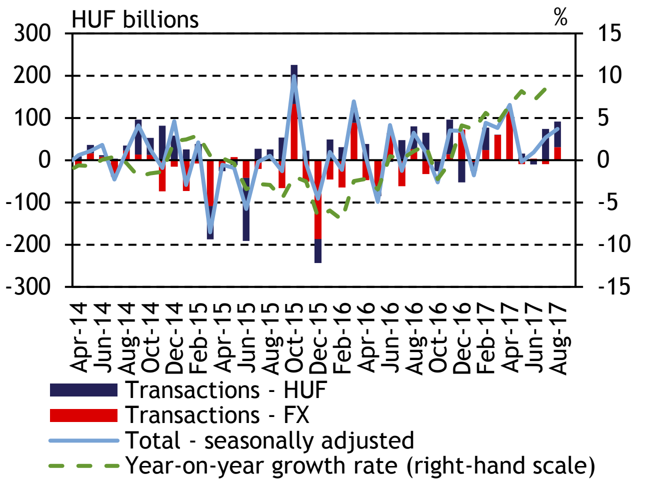
2.56 per cent, respectively.

The stock of Hungarian forint-denominated government securities held by non-residents dropped by HUF 20 billion in the period, thus their holdings amounted to HUF 3,561 billion at the end of the period. Their share in forint government securities decreased moderately, below 23 per cent. The Hungarian CDS spread fluctuated between 90 and 100 basis points, and at present it stands at 96 basis points, which was in line with the regional trends.

3. TRENDS IN LENDING

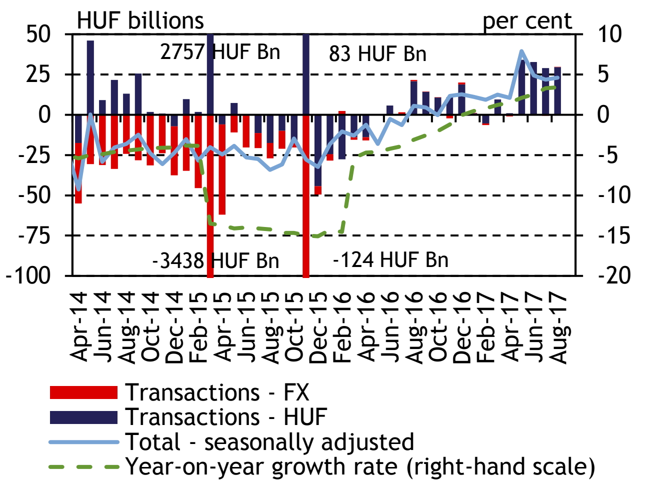
In August, the outstanding corporate loans of credit institutions rose by HUF 92 billion due to transactions, which is equivalent to an increase of HUF 74 billion on a seasonally adjusted basis. The outstanding loans of the credit institutions to households rose by HUF 30 billion in total, as the combined balance of disbursements and repayments. In August, the smoothed interest rate spread of forint corporate loans fell slightly, by 0.1 percentage point and stood at 2.3 percentage points.

Chart 15: Net borrowing by non-financial corporations



Source: MNB

Chart 16: Net borrowing by households

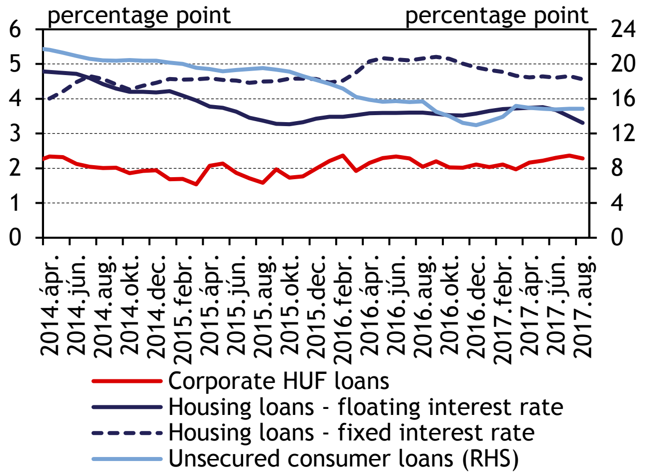


Source: MNB

In August, the outstanding corporate loans of credit institutions rose by HUF 92 billion due to transactions, which is equivalent to an increase of HUF 74 billion on a seasonally adjusted basis (Chart 15). In a breakdown by currency, forint loans and foreign currency loans increased by HUF 61 billion and HUF 31 billion, respectively. In August 2017, corporate lending rose by 8.6 per cent in annual terms. Excluding money market transactions, the volume of new loans amounted to HUF 215 billion during the month; the value of the money market transactions was HUF 108 billion. The gross amount of new loans in August was up 24 per cent in annual terms.

The outstanding loans of the credit institutions to households rose by HUF 30 billion in total as the combined balance of disbursements and repayments, thus at the end of August the annual growth in outstanding lending accelerated to 3.4 per cent (Chart 16). The value of new contracts concluded during the month was HUF 121 billion, thus in annual terms it registered a growth of 42 per cent. As regards the individual sub-segments, the volume of new housing loans and personal loans rose by 26 and 47 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 fell slightly, by 0.1 percentage point and stood at 2.3 percentage points in August (Chart 17). However, the spread on small-amount market loans – 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), is still 4.3 percentage points, which can be considered high in international comparison. The spread on unsecured consumer loans to households was 14.8 percentage points in August. The problem of high spreads affects primarily the market of long-term fixed-rate transactions.