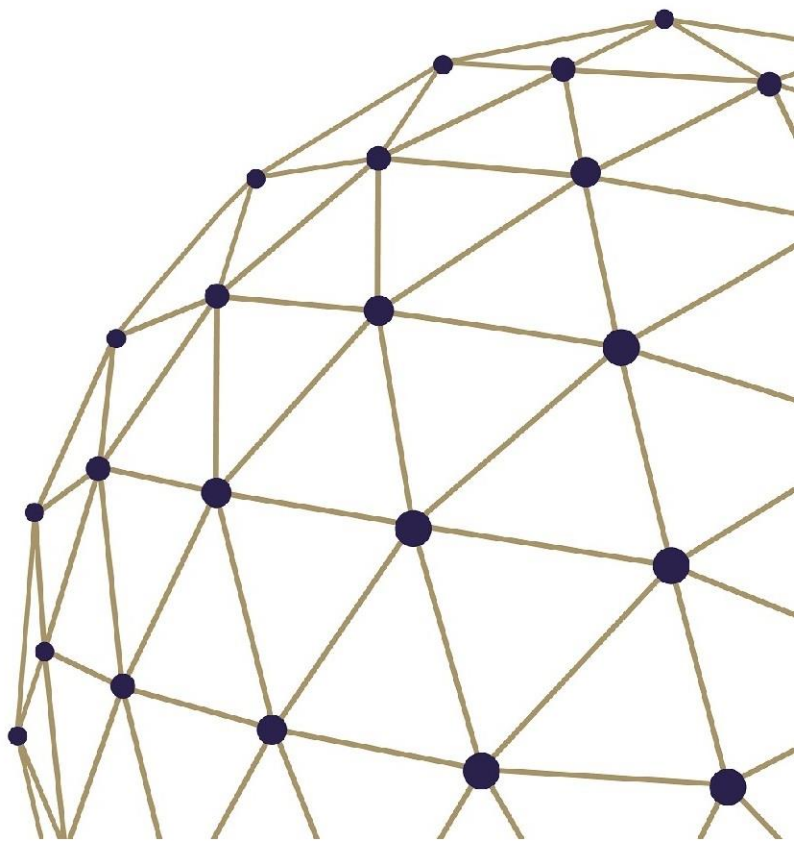




Macroeconomic and financial market developments

November 2017

Background material
to the abridged minutes of the
Monetary Council meeting
of 21 November 2017



Time of publication: 2 p.m. on 6 December 2017

The background material 'Macroeconomic and financial market developments' is based on information available until 17 November 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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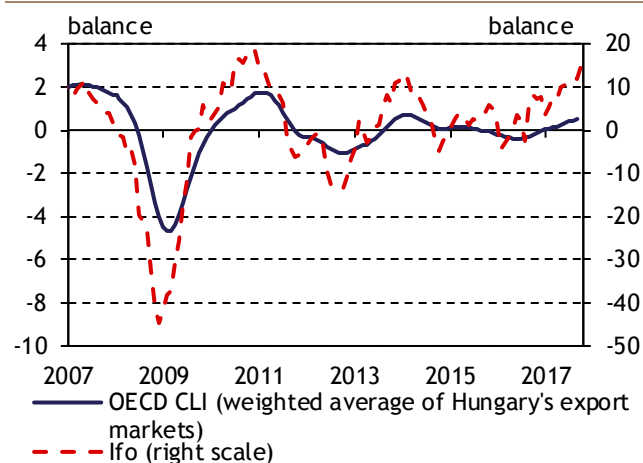
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1. MACROECONOMIC DEVELOPMENTS

1.1. Global macroeconomic environment

GDP figures for the third quarter of 2017 showed a positive picture overall. The growth in the euro area continued at a stable rate; economic growth both in Germany – Hungary's most important trading partner – and in the USA outstripped the expectations. 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. In line with this, 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



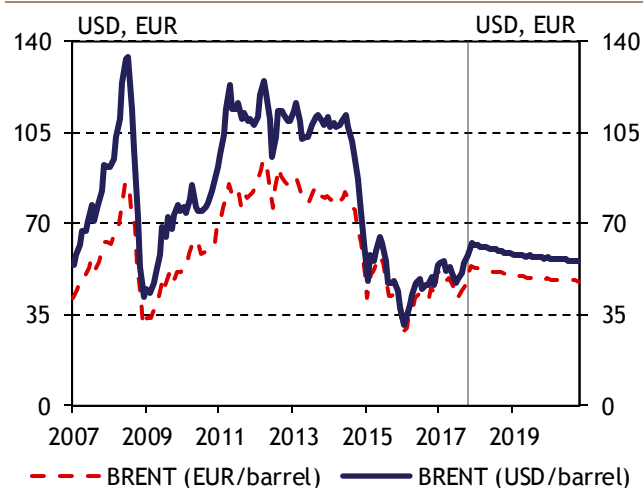
Source: OECD, Ifo

GDP figures for the third quarter of 2017 continued to show a positive picture overall. Based on the seasonally adjusted data, **the euro area economy registered a year-on-year growth of 2.5 per cent, while growth in the USA continued at a faster rate than expected.** Based on the rise in the Eurocoin indicator registered last month, and the Purchasing Manage Index, being close to its historic high, **we expect the buoyant European economic activity to persist.** According to the incoming data, growth in industrial production continued, while that in retail sales volume accelerated in September in the European Union. As a result of the new information, the economists' expectations with regard to economic growth in the euro area shifted upwards. The risks to growth are balanced, but the exit of the United Kingdom from the EU still carries negative risks.

Germany, Hungary's most important trading partner, grew materially, exceeding the expectations, in the third quarter. The growth in the German economy was attributable to the continued rise in investments and to stable consumption; in addition, net exports also made a positive contribution to growth in quarter-on-quarter terms. The performance of the German industry developed favourably in the past months, and both the Ifo index, capturing the outlooks of the German industry, and new industrial orders increased (Chart 1).

The global inflation environment is still moderate; in October both inflation and core inflation slightly decreased in the euro area. Due to a modest increase in wages, **underlying inflation processes overall developed more moderately than expected.** On the other hand, oil world market price in October rose substantially, over USD 60 (Chart 2). The price rise can be explained by the restoration of the market equilibrium, earlier than expected by market. This can be attributed to the favourable demand environment, the expected prolongation of the production adjustment by OPEC, the intensification of the geopolitical risks in the Middle East and the decrease in shale oil extraction in the USA. World market prices of industrial commodities moderately decreased, while those of unprocessed food remained essentially unchanged in October.

Chart 2: Brent crude oil world market prices

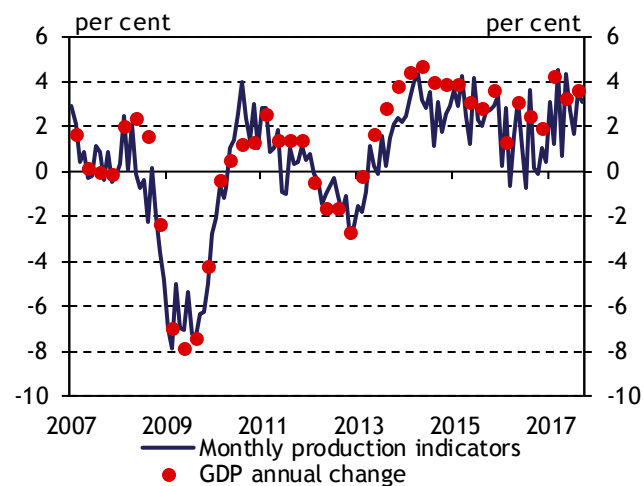


Source: Bloomberg

1.2. Domestic real economy developments

According to the HCSO's data release, in 2017 Q3 Hungary's GDP grew by 3.6 per cent year on year. Services contributed to the growth to the largest degree. The unemployment rate dropped to 4.1 per cent in the third quarter. Within employment, the number of public workers declined, while private sector employment continued to increase.

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

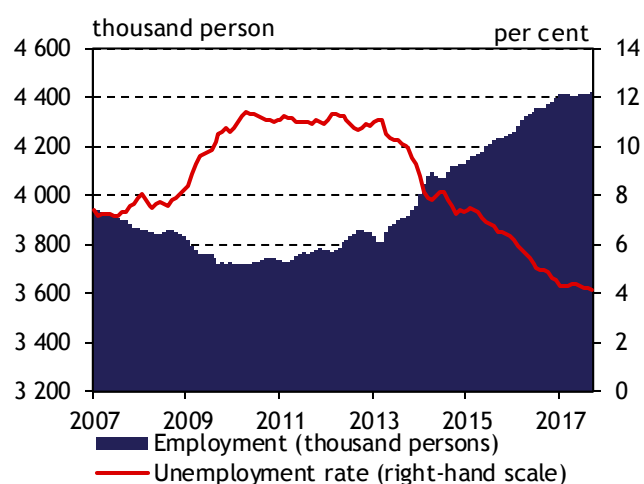
Based on the preliminary release by the HCSO, in the third quarter of 2017 Hungary's GDP grew at a rate of 3.6 per cent year on year. Based on the seasonally adjusted data, Hungary's GDP rose by 0.8 per cent quarter on quarter. On the output side, services contributed to the growth to the largest degree.

The detailed output and expenditure side structure of the GDP is not yet public, thus we can make assumptions with regard to the processes underlying the incoming data only on the basis of the monthly output data available to us (Chart 3). According to these indicators, in the context of the favourable external cyclical developments, the growth in industrial production continued in the third quarter, contributed to by the growth in a broad range of sectors. The vigorous growth in construction output is attributable to the construction of industrial, residential and other buildings, as well to infrastructure developments. The rise in retail sales volume continued and it developed slightly more favourably than in the previous quarter.

In September 2017, the volume of industrial output was up 5.4 per cent year on year, while it decreased by 0.7 per cent compared to the previous month. Production, excluding the working-day effect, rose by 8.1 per cent year on year. The subsectors contributed to industrial output in a different way. The output of vehicle manufacturing, representing the highest weight, and of food industry declined in an annual comparison. Of the manufacturing industries of higher weight, the manufacturing of electronic products substantially rose. 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 5.5 per cent and 6.7 per cent, respectively, year on year**, in September 2017, in line with the industrial production trends. The trade surplus was down by EUR 36 million from last September. In August 2017 the terms of trade have not changed year on year. The terms of trade deteriorating effect of the change in the relative price of mineral fuels and processed goods was offset by the relative price change of chemical goods, machinery and transport equipment.

Chart 4: Number of persons employed and the unemployment rate



Source: HCSO

In September 2017, the volume of construction output was up 23.8 per cent year on year, while output decreased by 3.8 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 buildings and, to a lesser extent, of sports facilities, educational and residential buildings. The volume of concluded new contracts increased by 130.0 per cent, while the month-end volume of construction companies' contract portfolio was up 119.5 per cent year on year.

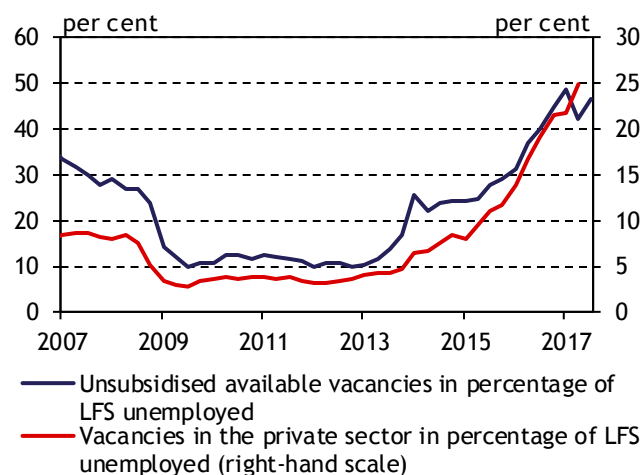
In September, according to the preliminary data, retail sales volume, based on the raw data, was up 5.4 per cent, while based on the data adjusted for the calendar effect it rose by 6.0 per cent year on year. GDP was up 0.7 per cent compared to the previous month. The pick-up was still primarily attributable to the substantial rise in the turnover of non-food consumer durables, but on the whole turnover generally increased in a wide range of products. The only exception to this is the minor annual decrease in fuel sales.

1.2.2. Employment

According to the Labour Force Survey data, in the third quarter of 2017 growth in employment continued. In parallel with this the level of unemployment decreased; unemployment rate stood at 4.1 per cent (Chart 4). Within employment, the lower number of people in employment in the general government was attributable to the gradually decreasing public employment, while the growth in the private sector employment was generated by the rise in the number of employees in the construction and other industrial segments.

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.

Chart 5: Indicators of labour market tightness

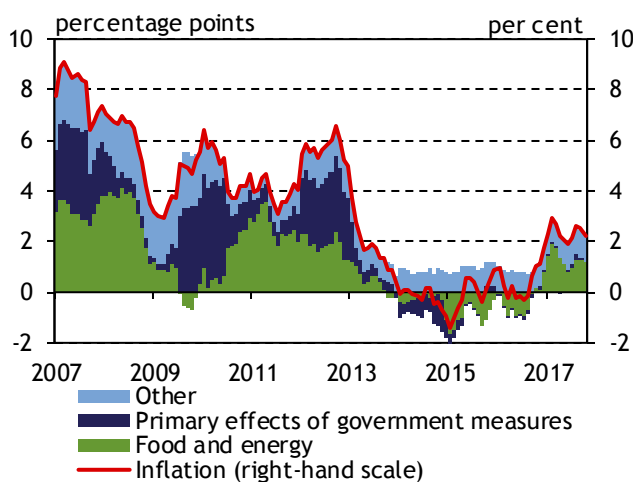


Source: National Employment Service, HCSO

1.3. Inflation and wages

In October 2017, inflation stood at 2.2 per cent, core inflation at 2.7 per cent and core inflation excluding indirect taxes at 2.3 per cent. Underlying inflation indicators decreased and stood around 2 per cent, thus still materially falling 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

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.**

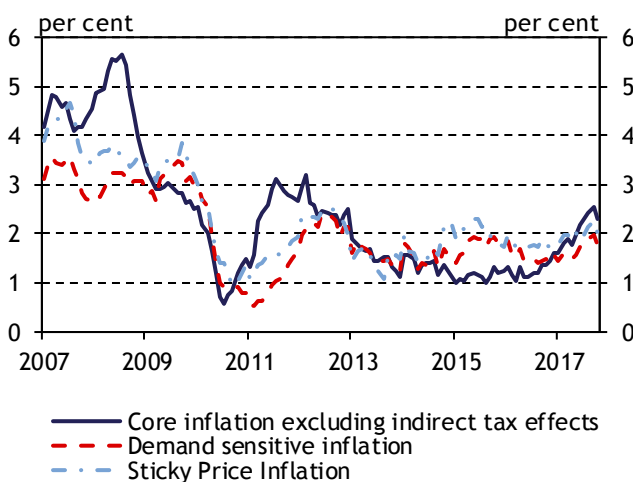
1.3.2. Inflation developments

In October 2017, year-on-year inflation was 2.2 per cent, while core inflation and core inflation excluding indirect taxes stood at 2.7 and 2.3 per cent, respectively (Chart 6). Inflation and core inflation fell by 0.3 percentage point and by 0.2 percentage point, respectively, relative to the previous month. The decline in inflation was caused by the decrease in the industrial goods and fuel price index attributable to the base effect.

Underlying inflation indicators decreased and stood around 2 per cent, thus still materially falling short of the core inflation (Chart 7). Industrial goods and services are still characterised by moderate price developments. The price index of milk and dairy products declined, in line with the decelerating rise in agricultural producer prices. In September 2017, agricultural producer prices rose by 5.5 per cent in annual terms, while the domestic sales prices of the consumer goods sectors increased by 5.2 per cent.

After a temporary rise, the consumer price index is likely to decline again to the bottom of the tolerance band by the end of 2017. Inflation will reach the 3 per cent target sustainably by mid-2019.

Chart 7: Measures of underlying inflation indicators

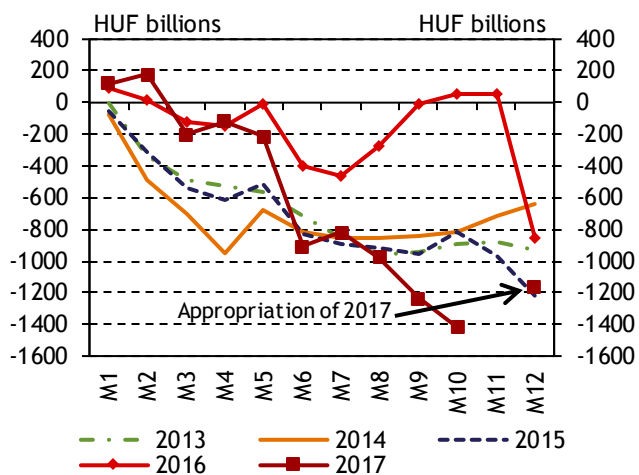


Source: MNB calculation based on HCSO data

1.4. Fiscal developments

The central sub-sector of the general government closed with a deficit of HUF 182 billion in October 2017, while the cumulative balance of the current year amounted to HUF -1,418 billion at the end of the tenth 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 182 billion in October 2017, while the cumulative balance of the current year amounted to HUF -1,418 billion at the end of the tenth month (Chart 8). The monthly balance is the lowest value of recent years, while the cumulative balance exceeds the annual estimate of the 2017 Budget Act.

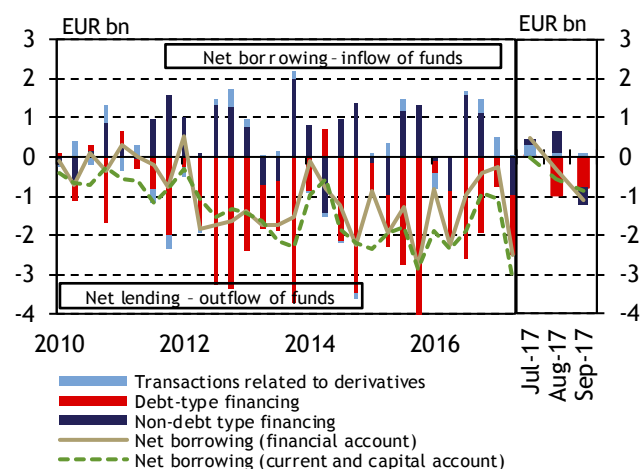
The **revenues of the central sub-sector** in October 2017 were up by HUF 149 billion year on year. The difference is primarily attributable to lower volume of VAT refunds in October, resulting from the change in the rules related to the deadline of VAT reclaims.

The **expenditures of the central sub-sector** in October 2017 were up by HUF 391 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.

1.5. External balance developments

In September, net lending of the economy exceeded this year's average monthly value. In addition to the improvement in the trade balance, the transfer balance declined under moderate absorption of EU transfers. The surplus in the balance of goods, after the moderate values observed in the past months, substantially rose.

Chart 9: Structure of net lending (unadjusted transactions)



Source: MNB

In September, net lending of the economy amounted to EUR 870 million, which exceeds this year's average monthly value (Chart 9). In addition to the improvement in the trade balance, the transfer balance declined under moderate absorption of EU transfers. The surplus in the balance of goods, after the moderate values observed in the past months, substantially rose, primarily contributed to by the chemical, metal and electronic subsectors, while the performance of vehicle manufacturing stagnated.

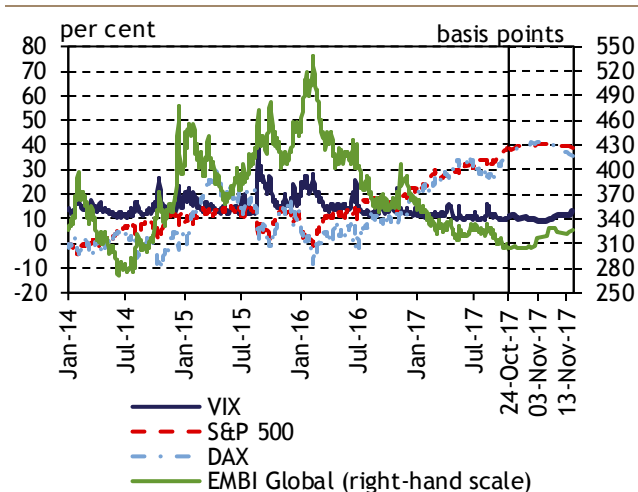
According to financing side processes, net lending of the economy amounted to EUR 1.1 billion, being the combined result of the outflow of debt and non-debt liabilities. The fall in foreign direct investments was mostly linked with the rise in the commercial loans granted by the Hungarian subsidiaries of foreign-owned companies, while the shareholdings and reinvested earnings pointed to a growth in FDI. In September, the net external debt of the economy decreased further by almost EUR 800 million, contributed to by all three sectors. The net external debt of the government decreased under the absorption of EU transfers, while this was partially offset by the rise in the government securities holding of non-residents and a minor decline in foreign exchange reserves. The minor decrease in foreign exchange reserves was linked with the maturity of foreign exchange swaps, granted for the forint conversions, and to the institutional foreign currency payments during the month. The developments in external liabilities and external assets also pointed to a decline in the banking sector's net external debt. Corporations, similarly to the previous periods, continued to reduce their net external debt.

2. FINANCIAL MARKETS

2.1. International financial markets

In the first half of the period since the last interest rate decision investor sentiment was calm, followed by a minor deterioration in sentiment in the global financial markets at the period-end, thus the rise observed in the developed and emerging market stock market indices at the beginning of the period, mostly adjusted. Amid the mid-November risk averse sentiment, developed yields declined, the emerging ones generally rose in parallel with the emerging bond market risk indicator, to the rise of which the news related the Venezuelan bond restructuring and the Saudi internal policy events also contributed. As a result of the ECB's decision, the euro first depreciated against the dollar, followed by an appreciation due to the favourable euro area figures published at the end of the period. Oil prices continued to rise during the month, although the price increase stopped at the period-end.

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



Source: Bloomberg

In the first half of the period since the last interest rate decision investor sentiment was favourable, followed by a modest deterioration in sentiment in the global financial markets at the period-end. Demand for risky assets was strong in the first part of last month, thus the developed and emerging stock exchanges continued their rise, reaching new historic highs. However, during the mid-November adjustment, indices declined. Volatility in the developed bond markets decreased and yields dropped, which may have been partly attributable to the extension of the ECB's government securities purchase programme until September 2018 and the moderate market reaction to the efforts of Catalonia to become independent. On the other hand, the emerging bond market risk indicator slightly rose in the middle of the period compared to its moderate level recorded at the beginning of the period, primarily as a result of the news related to the Venezuelan bond restructuring and the uncertainties in the Middle East. Oil price continued to rise during the period, partly due to the news on the anti-corruption arrests in Saudi Arabia and the information leaked before the approaching OPEC meeting about the prolongation of the production adjustment. The publication of the International Energy Agency, projecting a material growth in US shale oil extraction in the coming years, may have contributed to the period-end decline in oil prices.

Developed market stock exchange indices reached another historic high, followed by a decline (Chart 10). In the first half of the period, developed and emerging equity indices still increased at a rate of 1 to 6 per cent, then – as a result of the mid-November adjustment – taking the period as a whole, they made only a minor shift, with the exception of the Japanese Nikkei, which preserved 3 per cent of its 6 per cent rise even by the period-end. Western European markets were dominated by the fall in FTSE, caused by the negative news related to Brexit and the internal policy tensions around Theresa May. In parallel with the stock exchange movements, by the end of the period the VIX index rose to 13 per cent from its former

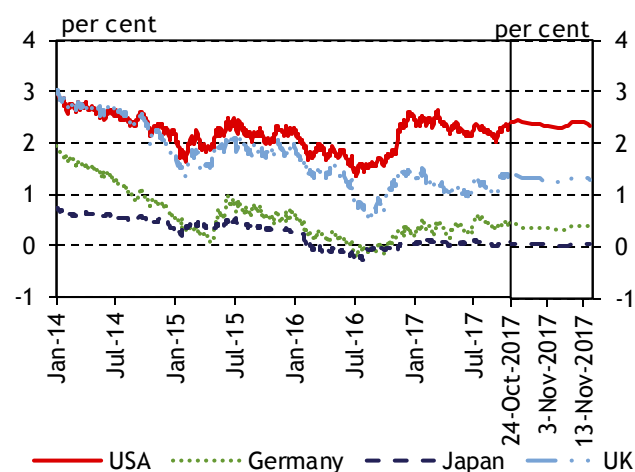
historic low of around 10 per cent.

The emerging bond market EMBI Global spread rose slightly, by 23 basis points, reaching the level that characterised the first half of the year; however, a large part of this was mainly the consequence of the risk aversion related to certain emerging countries (Venezuela, Saudi Arabia).

Developed countries' long-term bond yields declined (Chart 11). The US 10-year Treasury yield and the German long-term yield fell by 10 basis points, while the British one dropped by 7 basis points. The Japanese yield declined by 2 basis points, while the peripheral euro area yields dropped by 10-30 basis points, outstripping the degree of decline in the developed ones. The Spanish yield decline may have been partly attributable to the new Catalan elections called for December. At the same time, the fact that part of the yield decrease turned in parallel with the deterioration in global sentiment, signals uncertainty. In the narrower region, yields typically rose, but the Hungarian long-term yield decreased by almost 30 basis points, which may be attributable to the MNB's October communication, which implied easing. The considerable, 30 basis points, increase in the Romanian 10-year yield can be ascribed to the investor sentiment related to the overheating of the economy.

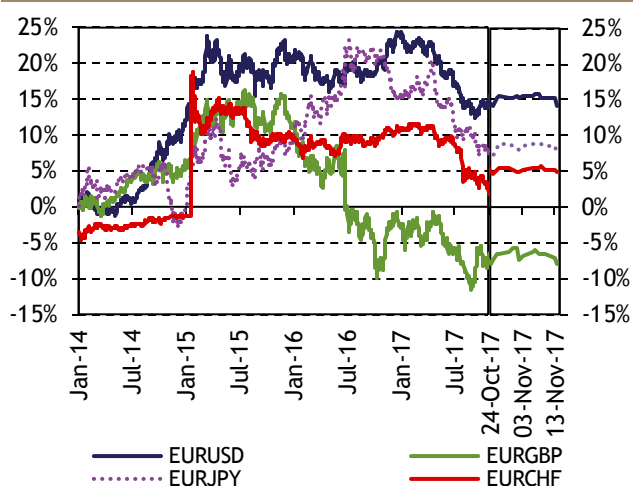
Oil prices continued to rise (Chart 2). The price of both the Brent and the WTI crude oil rose by about 6 per cent in the past period, while the increase registered from the beginning of September was almost 15 per cent. This was primarily attributable to the uncertainty around the Saudi arrests, and the news leaked about the extension of the production adjustment by OPEC, according to which at the end-November OPEC meeting the parties to the agreement may extend the production cut until as late as end of 2018 contrary to the originally planned date of mid-2018. The rise of the oil price halted at the end of the period, which was caused by the International Energy Agency's projection. According to that, a large part – about 80 per cent – of the rise in oil supply in the coming years will be attributable to the growth in the extraction by the United States, and particularly to the soar in shale oil production. The statistics on the weekly changes in the US oil inventories, which showed an increase instead of the expected decrease in stock in November, and the news that Russia is reluctant to extend the production adjustment agreement until end-2018, also pointed to this direction.

Chart 11: Yields on developed market long-term bonds



Source: Bloomberg

Chart 12: Developed market FX rates



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

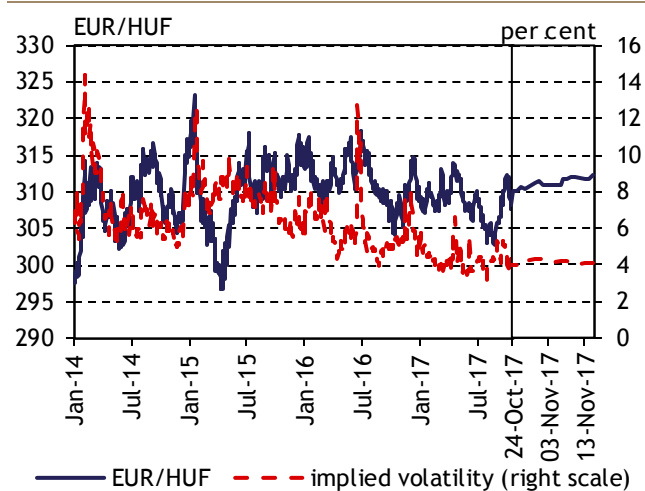
Source: Reuters

At its October meeting the ECB announced that it would continue its asset purchase programme from January 2018 for 9 months, but – if circumstances so require – even longer, in a volume of EUR 30 billion per month, while the central bank made no declaration on the closing of the asset purchase programme. The market considered this decision to suggest that the first interest rate increase would not take place before mid-2019, thus part of market participants' former expectations with regard to an earlier interest hike may have been priced out, which led to the depreciation of the euro by roughly 1.5 per cent against the dollar after the decision. However, as a result of the favourable period-end euro area GDP figure, the euro made up for a large part of this depreciation. The Bank of England increased the interest rate for the first time after a long time: it raised the key policy rate by 25 basis points to 0.5 per cent. Nevertheless, the British pound, which still showed signs of appreciation at the beginning of the period, depreciated against both the euro and the dollar by 1.5 per cent in total, as the statement of the Governor suggested that the further interest rate path will rise only at an extremely slow and gradual pace (Chart 12).

2.2. Developments in domestic money market indicators

The forint depreciated against the euro and the currencies of the region in the past month. The steepness of the government securities market yield curve declined, as the moderate increase in short-term yields was accompanied by a 20-30 basis points decrease in the longer section of the yield curve. The 3-month BUBOR has not changed, it still stands at 0.03 per cent. Non-residents' forint government securities holding declined by HUF 18 billion, thus their share is around 22.5 per cent.

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

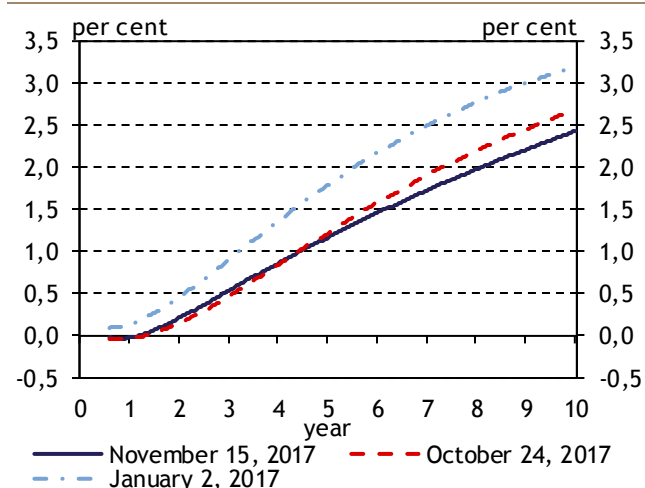


Source: Bloomberg

During the period under review, the forint depreciated by 1.2 per cent against the euro. On the whole, the forint exchange rate rose from 309 to 312. As a result, the forint depreciated even compared to the currencies of the region, since the Polish zloty and the Czech koruna showed a minor appreciation since end-October, and only the Romanian leu depreciated to a similar degree, of almost 1 per cent (Chart 13).

The government yield curve became substantially less steep: the short-term section of the yield curve, up to one year shifted by 3-5 basis points up, while the long – 10-15 years – end of the curve dropped by 20-30 basis points (Chart 14). The 28 basis point decrease in the secondary market long-term, ten-year yield was just the opposite of the changes observed in the region, as the Polish, Czech and Romanian yields all increased.

Chart 14: Shifts in the spot government bond yield curve



Source: MNB, Reuters

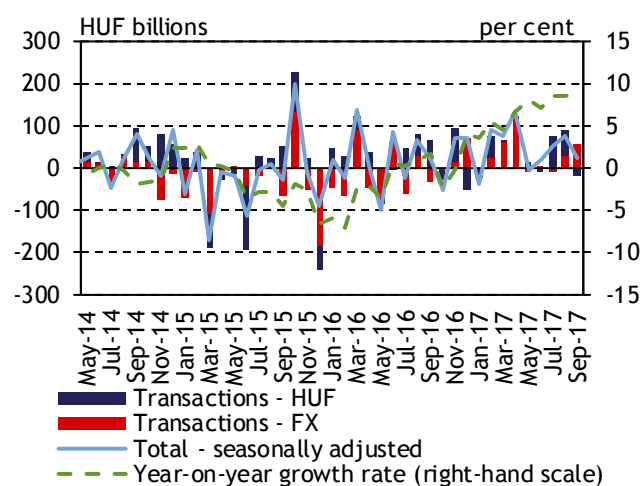
Despite the substantial raise in the volumes offered at the bond auctions of the period, demand remained strong. In the case of 3-month Treasury bill auctions the bid-to-cover ratio was roughly two-fold, while average yields increased by almost 2 basis points compared to the period before the previous interest rate decision, and were around 0.01 per cent in the second half of the period. As regards the 12-month Treasury bill, demand was also strong and the average yield dropped by 9 basis points to 0 per cent at the auctions. At the auctions of the long-term government securities, outstanding demand was shown primarily for the fixed 5- and 10-year bonds, as a result of which the Government Debt Management Agency raised the volume of accepted offers in all cases. The average yield of the 5- and 10-year bonds at the auctions decreased by 9 and 23 basis points, respectively.

The stock of Hungarian forint-denominated government securities held by non-residents dropped by HUF 18 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 dropped below 22.5 per cent. Amid the mixed global sentiment, the 5-year Hungarian CDS spread has not changed materially and stood around 95 basis points, which was in line with the regional trends.

3. TRENDS IN LENDING

In September, the outstanding corporate loans of credit institutions rose by HUF 37 billion due to transactions, which is equivalent to an increase of HUF 25 billion on a seasonally adjusted basis. The outstanding loans of the credit institutions to households rose by HUF 25 billion in total, as the combined balance of disbursements and repayments. In September, the smoothed interest rate spread of forint corporate loans has not changed, thus it still stands at 2.3 percentage points.

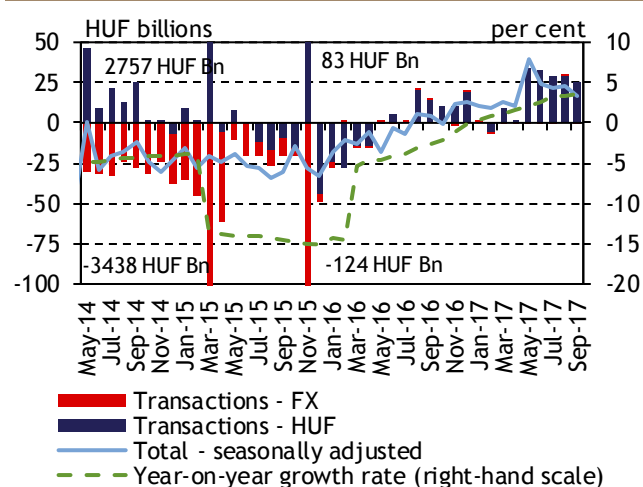
Chart 15: Net borrowing by non-financial corporations



Source: MNB

In September, the outstanding corporate loans of credit institutions rose by HUF 37 billion due to transactions, which is equivalent to an increase of HUF 25 billion on a seasonally adjusted basis (Chart 15). In a breakdown by currency, forint loans decreased by HUF 18 billion, while foreign currency loans increased by HUF 55 billion. In September 2017, corporate lending rose by 8.8 per cent in annual terms. Excluding money market transactions, the volume of new loans amounted to HUF 167 billion during the month; the value of the money market transactions was HUF 46 billion. The gross amount of new loans in September was up 26 per cent in annual terms.

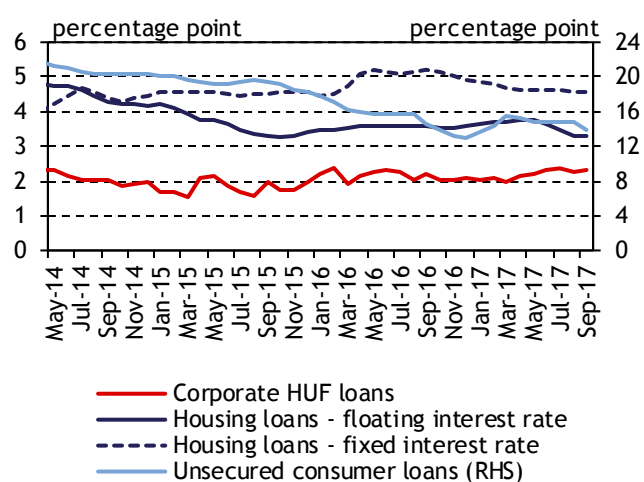
Chart 16: Net borrowing by households



Source: MNB.

The outstanding loans of the credit institutions to households rose by HUF 25 billion in total as the combined balance of disbursements and repayments, thus at the end of September the annual growth in outstanding lending accelerated to 3.6 per cent (Chart 16). The value of new contracts concluded during the month was HUF 119 billion, thus in annual terms it registered a growth of 43 per cent. As regards the individual sub-segments, the volume of new housing loans and personal loans rose by 29 and 46 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 housing loans with variable interest or interest fixed for at least 1 year the 3-months BUBOR, while in case of housing loans fixed for over one year the relevant margin above IRS.

Source: MNB

The smoothed interest rate spread of forint corporate loans has not changed in September, thus it still stands at 2.3 percentage points (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 at 4.3 percentage points, which can be considered high in international comparison. The spread on unsecured consumer loans to households stood at 13.8 percentage points in September. The phenomenon of high spreads affects primarily the market of long-term fixed-rate transactions.