Macroeconomic and financial market developments

October 2016

Background material
to the abridged minutes of the
Monetary Council meeting
of 25 October 2016

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The background material 'Macroeconomic and financial market developments' is based on information available until 19 October 2016.

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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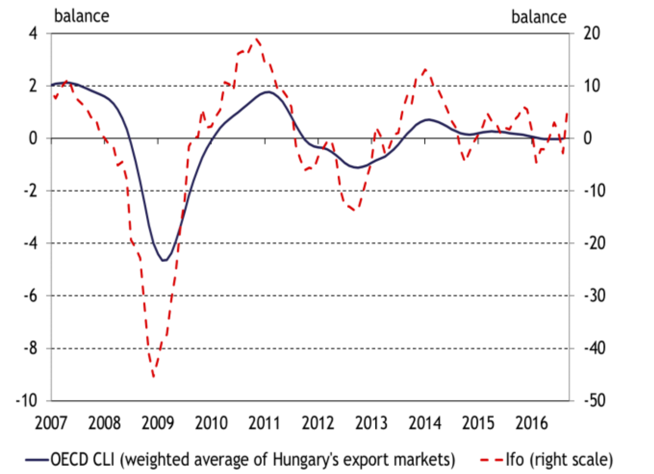
1. MACROECONOMIC DEVELOPMENTS

1.1. Global macroeconomic environment

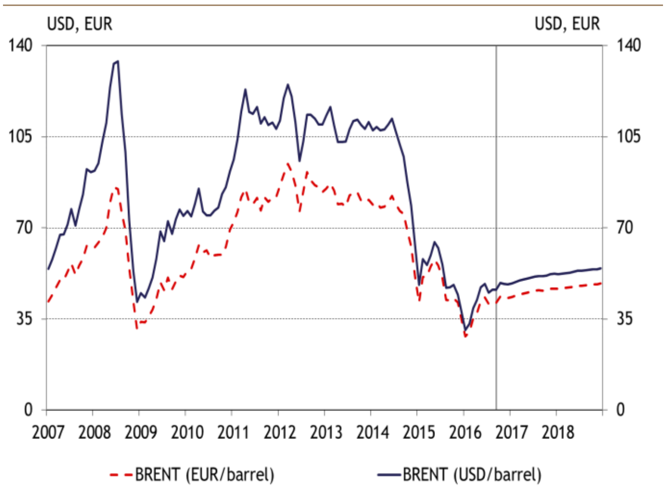
GDP figures for the second quarter showed a mixed picture overall. The economy of Germany – Hungary's most important trading partner – steadily expanded; however, the GDP growth of the USA fell short of the economists' projection. In addition, the deceleration of growth in China and the risks surrounding the economy, both point to the fragility of global economic activity. Uncertainty is further increased by the potential negative impacts of the UK referendum, which – depending on the outcome of exit negotiations – may also have an adverse effect on the performance of the Hungarian economy. In line with the moderate world demand, inflationary pressure from the world market has remained muted in recent months.

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



Source: OECD, Ifo

Chart 2: Brent crude oil world market prices



Source: Bloomberg

GDP figures for the second quarter showed a mixed picture overall. The economy of Germany – Hungary's most important trading partner – steadily expanded; however, the GDP growth of the USA fell short of the economists' projection. In addition, the deceleration of growth in China and the risks surrounding the economy, both point to the fragility of global economic activity. Low commodity prices continue to drag on the commodity exporters' activity growth, while persisting geopolitical tensions slacken growth in developed countries through weaker demand and economic sanctions. Over the short term, the effects of the UK referendum may be concentrated on the United Kingdom for the time being, but depending on the outcome of exit negotiations, they may also have a negative impact on the performance of the Hungarian economy over the medium and long term.

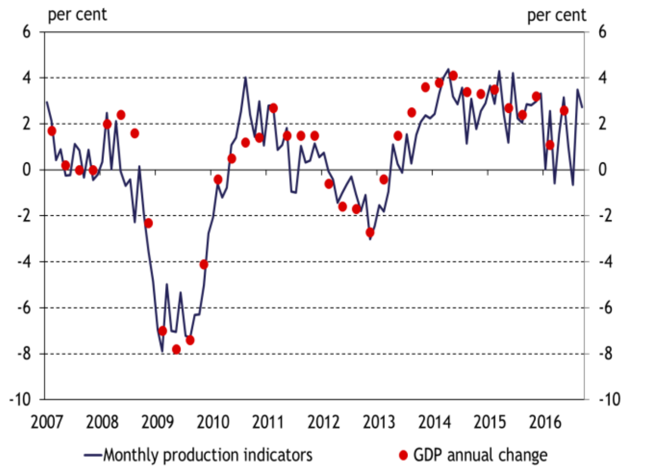
The euro area economy registered a quarter-on-quarter growth rate of 0.4 per cent in the second quarter of 2016. The exit of the United Kingdom from the EU carries significant medium- and long-term risks. Supported by increasing domestic demand and rising exports, economic growth remained dynamic in the second quarter in Germany, Hungary's most important export partner. The deteriorating cyclical developments seen in the beginning of the third quarter substantially adjusted in August. German industrial production, in parallel with exports, significantly rose in August, while the year-on-year decline in new orders continued. Together with the adjustment of industry, expectations concerning the German economy (Ifo) significantly improved after the less favourable outlooks registered in previous months (Chart 1).

Inflationary pressure from the world market remains weak amid persisting, extremely low commodity prices and subdued demand. As a result, inflation rates remained below target in the world's major economies. In the past month, oil prices fluctuated in the range of USD 45-53 (Chart 2). World market prices of industrial commodities and unprocessed food remained moderate.

1.2. Domestic real economy developments

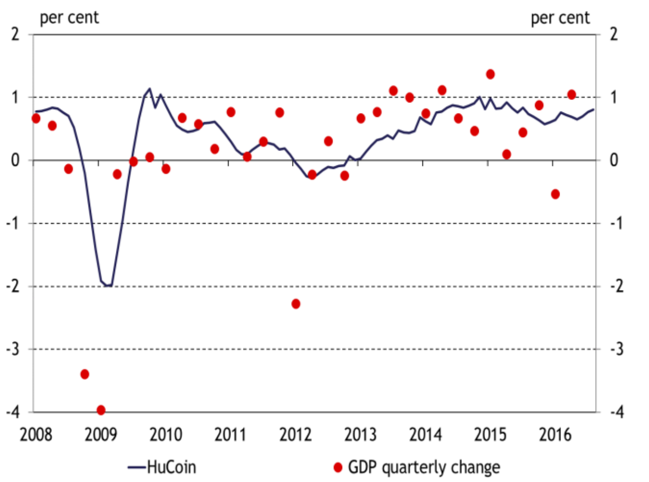
In the second quarter of 2016, Hungary's GDP grew at a rate of 2.6 per cent. Following the temporary loss of dynamics observed in the first quarter, the performance of the Hungarian economy adjusted. Based on the available indicators related to the past months, economic growth may continue in the third quarter. In August, whole economy employment rose by 3.1 per cent year on year. The unemployment rate stood at 4.8 per cent.

Chart 3: Monthly production indicators and GDP growth



Note: Weighted average of monthly production indicators (industrial output, construction output and retail sales). The weights are derived from regression explaining GDP growth.
Source: MNB calculations based on HCSO data

Chart 4: Evolution of the HuCoin indicator



Note: The historic values of the HuCoin indicator may have been changed by revisions to GDP data.
Source: MNB calculations based on HCSO data

1.2.1. Economic growth

In the second quarter of 2016, Hungary's GDP grew at a rate of 2.6 per cent year on year and by 1.0 per cent compared to the previous quarter. Based on the available indicators related to the past months, economic growth may continue in the third quarter (Chart 3).

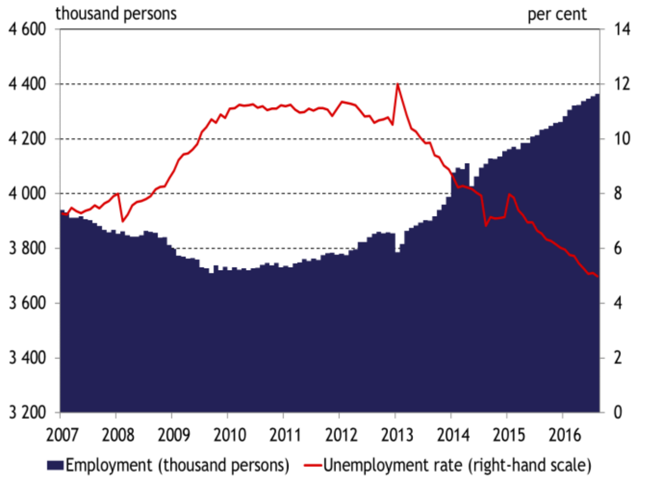
Capturing domestic economic performance outlook over the medium term, the HuCoin indicator shows the gradual recovery of economic growth (Chart 4).

In August 2016, the volume of industrial output was up 11.1 per cent and 3.5 per cent when adjusted for the working-day effect year on year, while on a seasonally adjusted basis it rose by 1.6 per cent compared to the previous month. On the whole, the manufacturing subsectors expanded compared to the previous month. Output in the engineering industry, the sectors representing the highest weight – thus that of the manufacture of transport equipment – increased to a greater degree than in the food and light industry, while the performance of the metal industry decreased compared to the previous month. **On the whole, forward-looking indicators reflect a mixed picture with regard to the short-term outlooks of the domestic industry.**

Based on preliminary data, expressed in euro terms, in August 2016 the value of exports and imports increased by 12.5 per cent and 10.8 per cent, respectively, year on year. The trade surplus was up EUR 157 million from last August. In July 2016 terms of trade continued to improve, with the stable contribution of the relative price change of machinery, transport equipment and processed goods, in addition to the low energy prices.

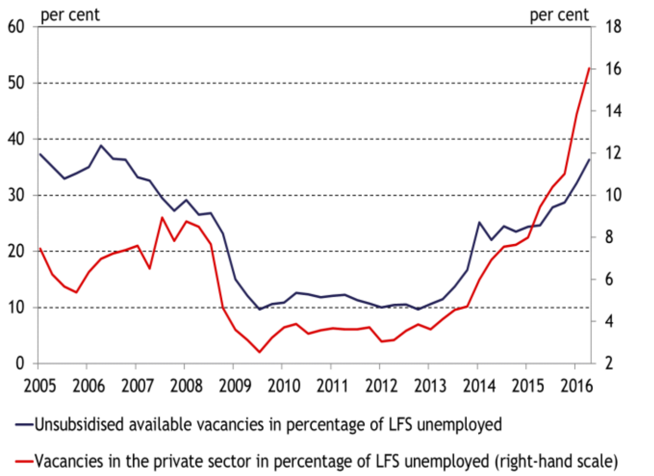
In August 2016 the **volume of construction was down 9.0 per cent year on year**, while output increased by 4.6 per cent compared to the previous month. The volume of new contracts decreased by 13.3 per cent year on year, contributed to by the fall in the new contracts of both main construction groups. The month-end volume of the construction companies' contract portfolio further increased – with an 18.5 per cent rise compared to last August – primarily attributable to the growth in the contract portfolio of the construction of buildings .

Chart 5: Number of persons employed and the unemployment rate



Source: HCSO

Chart 6: Indicators of labour market tightness



Source: National Employment Service, HCSO

In August, based on preliminary data, **the volume of retail sales was up 5.8 per cent year on year** and 4.3 per cent based on data adjusted for calendar effects, while turnover increased by 0.4 per cent compared to the previous month. As regards the structure of sales, sales volume increases were registered across a wide range of products.

1.2.2. Employment

According to Labour Force Survey data, **in August 2016 the number of employees in the national economy increased by 3.1 per cent year on year.** Unemployment continued to decrease, while the labour force participation rate slightly increased compared to July. In August the unemployment rate was 4.8 per cent (Chart 5).

In the second quarter the number of employees in general government increased slightly relative to the previous quarter, which was attributable to the rise in the number of public workers to the level seen at the end of the previous year. Within the private sector, the dynamic increase in workforce continued, in particular, in the market services sector.

According to the data released by the National Employment Service (NES), **there was no substantial change in the number of newly announced non-subsidised jobs** in August 2016, while the end-of-month number of vacant non-subsidised jobs reached a historic high in respect of the post-crisis period. In the second quarter the number of vacant jobs in the private sector published by the HCSO rose to another historic high. The gradual tightening observed in the labour market since 2013 continued (Chart 6).

1.3. Inflation and wages

In September 2016 year-on-year inflation was 0.6 per cent, while both core inflation and core inflation excluding indirect taxes stood at 1.4 per cent. Underlying inflation indicators remained unchanged and continue to point to a moderate inflation environment. In August 2016 the annual wage growth in the private sector accelerated compared to the previous month, thus wage dynamics remained stronger than the growth observed in the previous year.

1.3.1. Wage setting

In August 2016, the annual growth of gross average wages accelerated in the private sector compared to the previous month, **thus wage dynamics continue to outstrip the growth observed in the previous year**. According to seasonally adjusted data, gross average wages rose by 6.2 per cent year on year in the private sector. Regular wages rose to a greater degree on a monthly basis compared to the previous years. Within the private sector, the wage dynamics in manufacturing substantially increased, while the market service sector's wage dynamics also accelerated compared to the previous month, albeit to a more moderate decree.

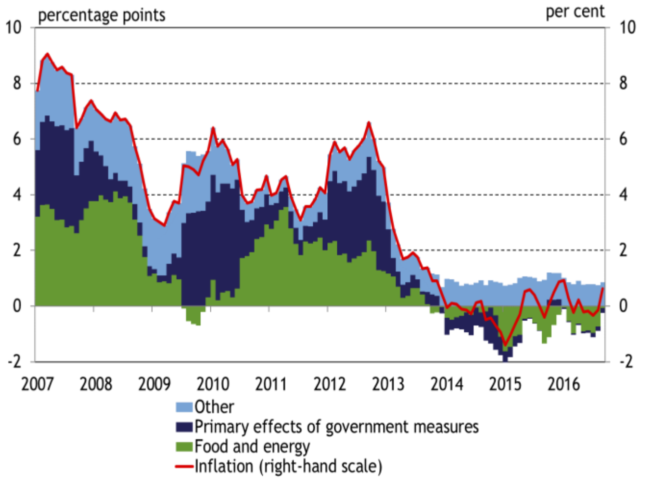
1.3.2. Inflation developments

In September 2016 inflation was 0.6 per cent, while both core inflation and core inflation excluding indirect taxes stood at 1.4 per cent (Chart 7). Inflation rose primarily as a result of the increasing annual index of fuel products stemming from a base effect.

Underlying inflation indicators continue to point to a moderate inflation environment, reflecting low imported inflation and inflation expectations, as well as moderate commodity prices (Chart 8). In August 2016 agricultural producer prices fell by 2.6 per cent in annual terms, while there was a minor increase in domestic sales prices of consumer goods sectors.

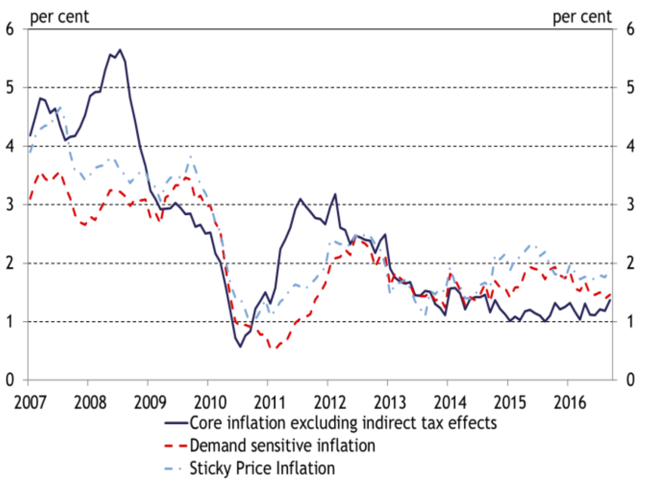
The incoming September inflation data corresponded to the projection in the September Inflation Report. According to our current forecast, inflation will remain below the 3 per cent inflation target both this year and next year, and it will only get close to the medium-term target by mid-2018. Partly as a result of base effects, inflation may gradually increase looking ahead.

Chart 7: Decomposition of inflation



Source: MNB calculations based on HCSO data

Chart 8: Measures of underlying inflation

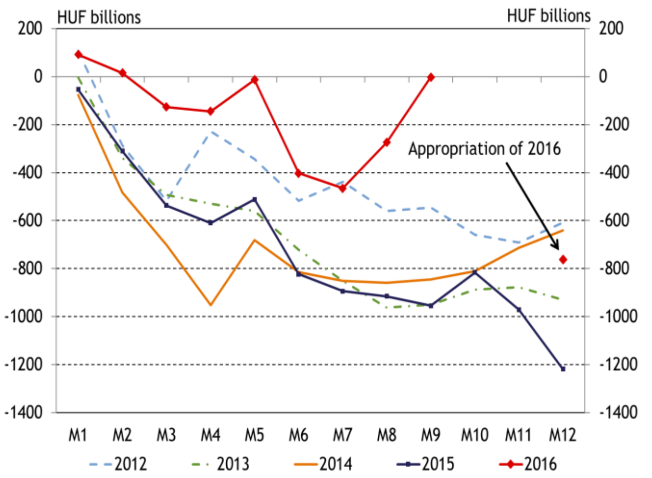


Source: MNB calculations based on HCSO data

1.4. Fiscal developments

The general government's central subsystem closed with a surplus of HUF 272 billion in September 2016, which represents a historically high balance.

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



Source: MNB calculations based on HCSO data

The general government's central subsystem closed with a surplus of HUF 272 billion in September 2016, which represents a historically high balance. The balance, which outstrips that of last September by HUF 310 billion, is essentially attributable to the revenues and expenditures related to EU transfers. On the one hand, of the amount transferred by the EU earlier, HUF 250 billion was recognised as fiscal revenue only in the period under review. On the other hand, a substantial part of the expenditures remained within the budget circle, thus it represented revenue for other budget institutions (as advance for their later expenditures). In addition to the foregoing, the higher revenues from value added tax and excise duty also improved the balance. **In the first nine months of the year, the cumulated cash deficit of the central budget was HUF 2 billion, the lowest figure recorded in recent years** (Chart 9). In the light of the favourable processes of the past period, the government modified its end of 2016 deficit target on an accruals basis from 2 per cent of GDP to 1.7 per cent.

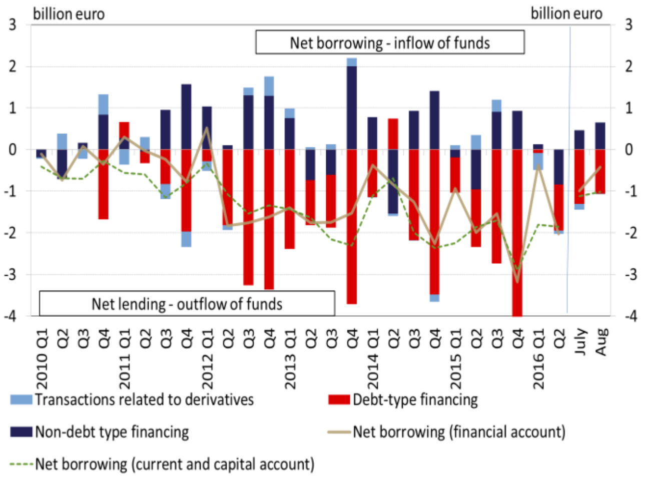
In September 2016 **the tax and contribution revenues of the central subsystem** exceeded the revenues of September 2015 by HUF 85 billion. This increment can be primarily linked to the revenues from value added tax, excise duty, social contribution taxes and individual contributions.

In September 2016 the **expenditures of the central subsystem** fell short of those in September 2015 by HUF 225 billion. The lower level relative to last year is primarily attributable to the decline in the net own expenditures of the spending units and budget chapters; however, the net expenditures related to EU transfers were also realised at a higher-than-expected level.

1.5. External balance developments

According to the August data release, the seasonally unadjusted external surplus amounted to EUR 1,010 million, with surpluses of EUR 460 million and EUR 550 million in the current and capital accounts, respectively. The substantial current account surplus is still attributable to the goods and service balances high, i.e. over EUR 900 million, surplus. The income balance deficit was around EUR 400 million in August as well.

Chart 10: Structure of external financing (unadjusted transactions)



Source: MNB

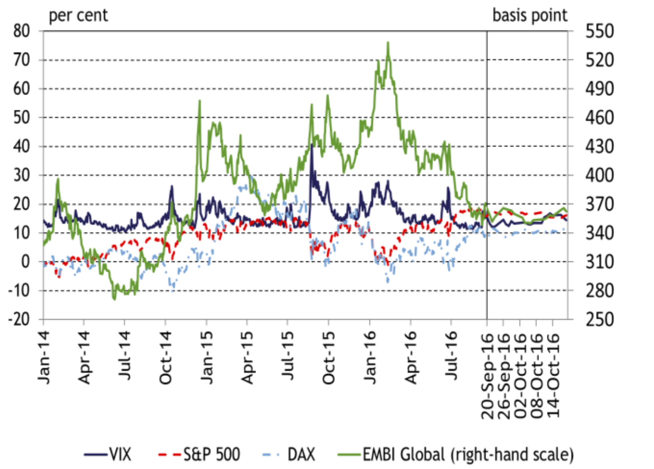
Net lending reached a lower level (approximately EUR 415 million) on the basis of financing side developments, resulting from a material fall in external debt and an upward drift in foreign direct investment. The inflow of non-debt type liabilities was achieved through a major, more than EUR 500 million increase in net foreign direct investment, which primarily reflected a rise in reinvested earnings. On the other hand, the rise in foreign direct investments was slightly restrained by the government's purchase of 15 per cent ownership share in Erste Bank. Net external debt decreased by EUR 1 billion during the month, mainly related to the banking and corporate sectors. The banking sector's net external debt fell in parallel with a rise in external assets, while the decline in the corporations' external debt was realised under the repayment of commercial loans and a rise in foreign deposits. The minor decline in the net external debt of the consolidated general government was due to the increasing absorption of the EU transfers, the impact of which was partially offset by the non-residents' government securities purchases.

2. FINANCIAL MARKETS

2.1. International financial markets

Although it has varied since the previous policy decision, the favourable market sentiment of the previous period essentially continued; risk indices remained low despite the smaller fluctuations. Foreign exchange markets were dominated by the devaluation pressure on the British pound and the appreciation of the US dollar, reflecting the strengthening interest rate increase expectations. Oil prices rose to USD 52 from the initial level of USD 46, representing an increase of around 15 per cent. Developed long-term bond yields increased during the period. Looking ahead, markets anticipate a change in the major central banks' monetary policy in December: they expect tightening by the Fed, and further easing by the ECB. The faltering of Deutsche Bank's stability is attributable to the expected future profitability problems and the vulnerability inherent in its business policy; due to its role in the investment and foreign exchange markets, it represents a major risk for the global financial system.

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



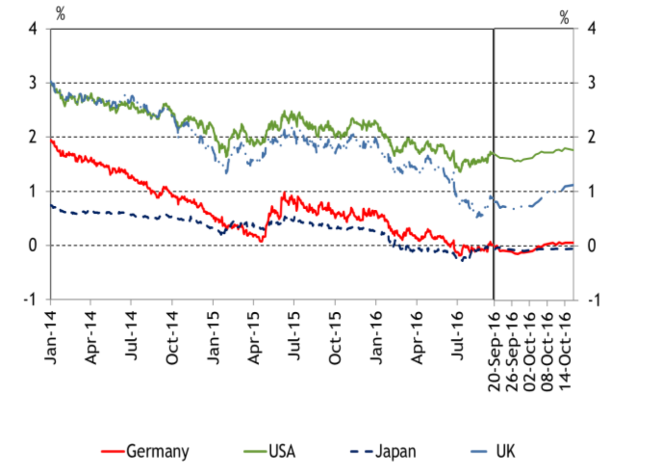
Source: Bloomberg

Since the last interest rate decision the positive risk appetite seen last months has not changed substantially. The favourable sentiment observed in the beginning of the period did not deteriorate evenafter the unexpected monetary policy measure of the Bank of Japan, albeit the policy shift from volume to yield targeting generated surprise among the market participants. The foreign exchange markets were highly affected by the announcement of the British Prime Minister, who officially designated the start date of process of the UK's leaving the EU, after which the British pound was exposed to depreciation pressure. In addition, the developments related to Deutsche Bank and the – unofficial – media information related to the ECB's monetary policy, and the gradual reduction of its asset purchase programme, impacted the European and international markets.

Developed stock market indices showed mixed performance. The European and Japanese stock exchanges, after minor fluctuations, were able to rise by 2-3 per cent on the whole, while the US stock market indices stagnated even despite the relatively positive start of the hearing reports season. The London stock exchange rose by almost 3 per cent, since the investors expect stronger performance of the listed companies producing for export markets as a result of the depreciation of the pound. On the whole, the MSCI composite stock price index of emerging markets was up 1.5 per cent.

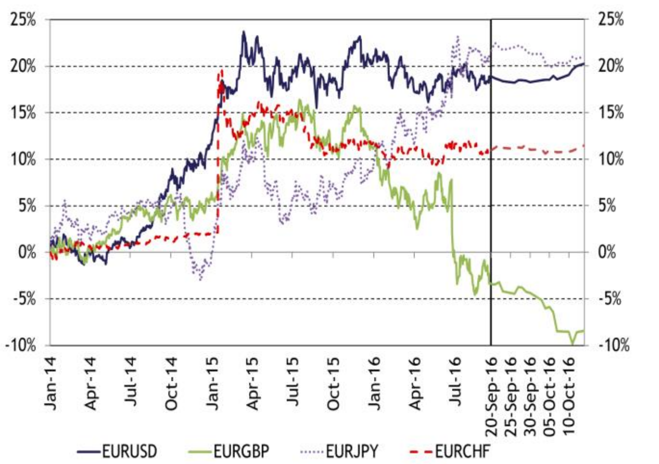
Risk indices still reflect a relatively high willingness to take risk. The VIX index during most of the period – apart from temporary volatility – fluctuated at a low level of around 12-14 per cent, while the emerging bond market's EMBI Global spread returned close to its initial level after a minor wavering (Chart 11). **The price of the Brent and WTI oil rose over USD 50 by the end of the period, registering an increase of 15-20 per cent.** This is primarily the result of the unofficial OPEC consultation in Algeria, where the oil producing countries made a preliminary agreement that

Chart 12: Yields on developed market long-term bonds



Source: Bloomberg

Chart 13: Developed market FX exchange rates



Source: Reuters

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

they would try to freeze the extraction by OPEC at a level of 32.5-33 million barrels per day. However, the oil market analysts are somewhat sceptic whether during the official November OPEC meeting a final agreement would be reached on the freezing of extraction, as the largest oil producers' output was close to their maximum capacity in recent months.

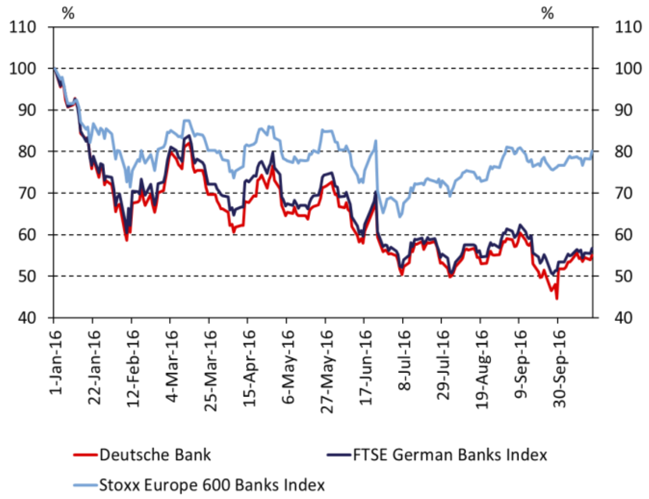
During the period, the bond yields of advanced economies slightly rose, while the British yield surged. The US and German ten-year yield rose by 5, while the Japanese one by 1 basis points. By contrast, the UK long-term yield increased by almost 30 basis points, as the depreciation of the pound caused inflation expectations and fears related to the economic prospects to strengthen, which had a yield-increasing effect (Chart 12).

Of the major currencies the dollar, after strengthening against the euro by 1.5 per cent, broke through the level of 1.10. The British pound was subject to material pressure due to the increasing concerns related to "hard Brexit", thus in these weeks it depreciated against the euro and the dollar by 4 and 5.5 per cent, respectively. Compared to this, the yen weakened to a much lesser degree, i.e. by 0.5-2 per cent, against these two currencies (Chart 13).

The monetary policy decisions of the advanced economies' central banks remained in focus. It turned out from the latest Fed meeting minutes that the policymakers were divided already in September between leaving the interest rate unchanged or increasing it, as a result of which the **probability of an interest rate hike in December increased.** On the other hand, there **are high uncertainties about the next steps of ECB:** although the markets regard the prolongation of the asset purchase programme and the modification of the parameters as the most probable outcome, the news appearing in the media about the potential gradual decrease of the monthly rate of the asset purchase programme generated temporary turbulences in market sentiments. The Bank of England's room for manoeuvre in respect of further easing may be narrowed by the increasing inflation rate anticipated in the wake of the weakening pound.

Due to its role in the financing of the European economy and its importance in the investment and foreign exchange markets, **Deutsche Bank (DB)** represents a high risk for the global financial system (the fifth largest investment bank globally). The faltering of DB in the market and the recent plunge in its share price can be attributed to the anticipated future profitability problems and its

Chart 14: Changes in Deutsche Bank's share price and developments in the share price of the large banks of the developed European countries



Source: Datastream

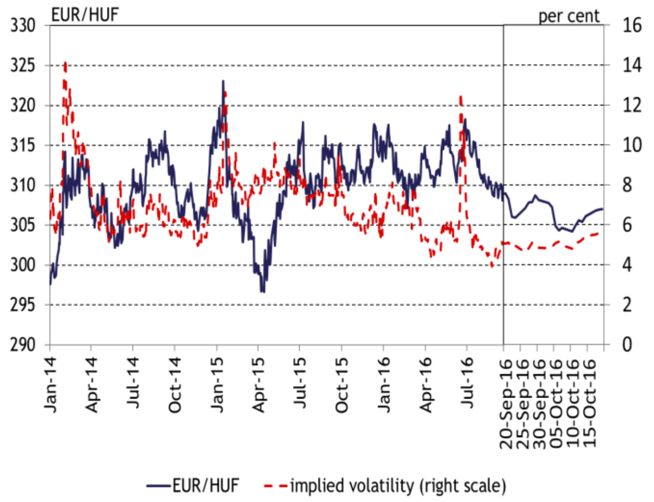
vulnerability inherent in its business policy (Chart 14). DB faces severe penalties in the United State due to its unfair operation after 2008, for which it failed to recognise sufficient provisions, an due to the market turbulences it may lose many of its institutional clients. In the case of the stress scenario, the DB group may lose one-third of its equity as a result of the penalty payments and losing part of its commission income[1]. The occurrence of such an event may have indirect impact on the Hungarian banking system through the foreign exchange markets. The direct exposure of the banking system to the DB group is low, roughly HUF 30 billion (with 6 credit institutions being affected). However, there are no data about the size of the indirect exposure; these may as well be the sources of more severe risk considering their size and contagion possibilities; in addition, several Hungarian banks keep their foreign currency accounts with the DB group.

[1] In 2015 commission incomes accounted for more than one-third of interest revenues.

2.2. Developments in domestic money market indicators

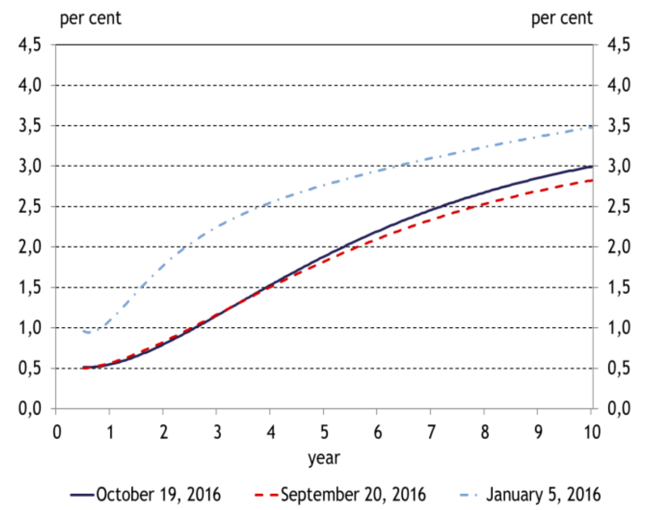
The EUR/HUF exchange rate strengthened, while the longer end of the government bond market yield curve shifted upward. Non-residents' government securities holdings slightly increased, while the Hungarian CDS spread is still fluctuating at a low level.

Chart 15: EUR/HUF exchange rate and the implied volatility of exchange rate expectations



Source: Bloomberg

Chart 16: Shifts in the spot government bond yield curve



Source: MNB, Reuters

Amidst volatile international sentiment, the forint exchange rate, breaking away from the regional trends, strengthened against the euro during most of the period, followed by a depreciation from mid-October together with the regional currencies. During the period, the EUR/HUF exchange rate moved between 304 and 310 (Chart 15)**, and appreciated by roughly 0.7 per cent during the entire period,** while Polish zloty and Romanian leu depreciated by 0.4 and 1.3 per cent respectively. In the first half of the period the strengthening of the forint contrary to the regional currencies may primarily be attributable to fundamental reasons, which was confirmed by the upgrading of Hungary's credit rating in mid-September. The temporary surge in the external demand for the Hungarian forint government securities, now rated investment grade by already two rating agencies, in the beginning of the third quarter also supported the appreciation of forint against the euro. The yield-decreasing effect of the MNB's first fine-tuning euro/forint swap tender and the publication of domestic data had no tangible impact on the forint exchange rate. The September inflation outcome, which was in line with the market expectations, caused no shift in the foreign exchange market either. The volatility of the forint exchange rate is slightly higher compared to the previous month, but it was still at a low level both in historic terms and by international standards.

The longer end of the government bond market yield curve shifted upward during the period: a yield increase of 10-15 basis points, similar to that in the regions, could be observed on the 10-15-year maturities, while there was no material shift in the short end of the curve (Chart 16).

During the period, the government bond auctions were mostly characterised by strong demand. Owing to heightened demand there was extra issuance for the 3-, 5- and 10-year maturities on each occasion. The average yields of the Treasury bill auctions rose by a few basis points until mid-October compared to the auctions of previous periods, then at the 3-month Treasury bill auction after the MNB's fine-tuning forint liquidity providing foreign exchange swap tender the average yield fell by 6 basis points to 0.39 per cent. At the period-end 12-month Treasury bill auction the average yield achieved was 0.51 per cent under strong demand, which represents a fall of

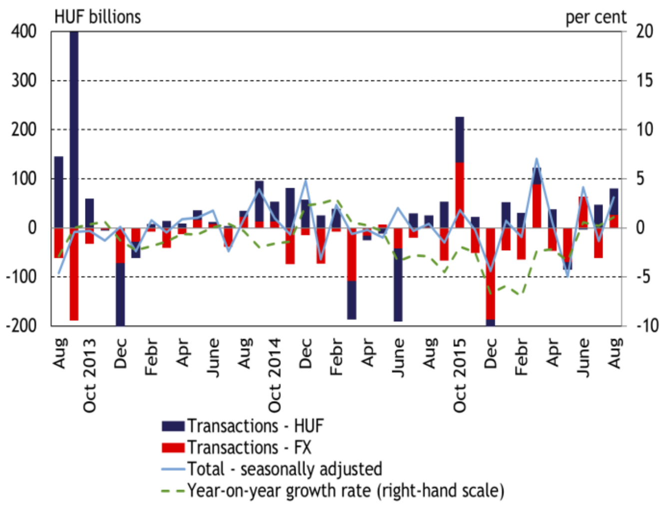
15 basis points compared to the yields achieved at the auctions before the swap tender. In the case of the longer-term government bonds the average auction yields dropped by 8-11 basis points during the period, compared to the pre-upgrade September auctions.

Non-residents' holdings of government securities have increased by HUF 23 billion in total since the last policy decision; as a result, their portfolio rose to HUF 3,730 billion during the period. The share of non-residents' holdings of HUF government securities remained close to 26.5 per cent. After an increase of 9 basis points, the Hungarian 5-year CDS spread was close to its eighteen-month trough, around 125 basis points.

3. TRENDS IN LENDING

At the end of August the annual dynamics of total corporate lending stood at 1.1 per cent. In August the interest rates on new corporate loans continued to fall, thus remained historically low. As a result of transactions, the outstanding borrowing of households increased by HUF 22 billion, primarily as result of the increase in the forint portfolio. In August, interest rates on new household loans were below the pre-crisis interest rate level.

Chart 17: Net borrowing by non-financial corporations

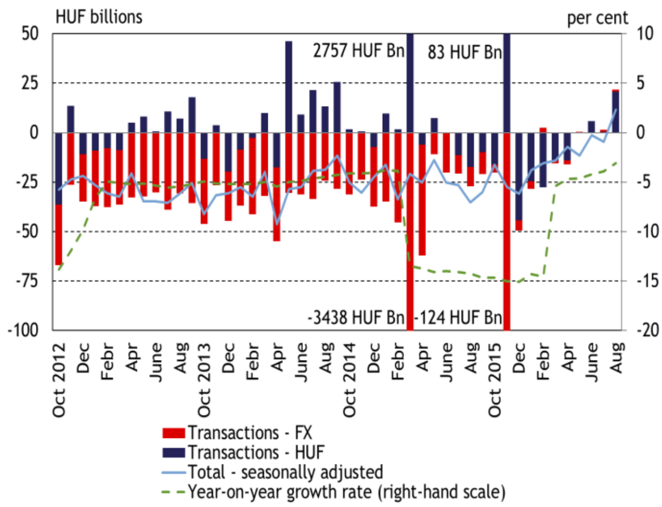


Source: MNB

As a result of transactions, **the outstanding loans of credit institutions to the corporate sector increased by HUF 80 billion in August,** equivalent to an increase of HUF 63 billion on a seasonally adjusted basis (Chart 17). On the other hand, the relatively high value of transactions was mainly attributable to the drawdown of the previously undrawn credit facilities. In terms of currency denomination, forint loans rose by HUF 54 billion, while foreign currency loans increased by HUF 26 billion during the month. Loan agreements concluded in the third phase of the Funding for Growth Scheme boosted the outstanding forint and foreign currency loan portfolio by HUF 35 billion and HUF 7 billion, respectively. At the end of August the annual dynamics of total corporate lending stood at 1.1 per cent. **In addition**, the outstanding borrowing of the **SME segment** showed an annual growth of 6.4 per cent by the end of the second quarter, thereby being in the band of 5-10 per cent, supported by the MNB.

In August the interest rates on **new corporate loans** continued to fall, thus remained historically low. In the case of new corporate loans, the average annualised interest rate on low-value forint loans decreased by 0.29 percentage points to 4.01 per cent from July, while excluding money market transactions, the average interest rate on higher-value forint loans, decreased by 0.82 percentage points to 2.39 per cent.

Chart 18: Net borrowing by households



Source: MNB

As a result of transactions, **the outstanding borrowing of households** increased by HUF 22 billion in August, primarily as result of the increase in the forint portfolio (Chart 18). During the month, the contraction in outstanding loans amounted to 3.1 per cent in annual terms. In the period under review, households concluded new loan contracts in a total value of HUF 104 billion, thus the average annual growth in new business volume was 47 per cent; within that the volume of new housing loans rose by 51 per cent.

In August, interest rates **on new household loans** were below the pre-crisis interest rate level. The annual percentage rate of charge on forint housing loans slightly decreased, i.e. by 0.05 percentage point to 5.68 per cent, compared to previous month.