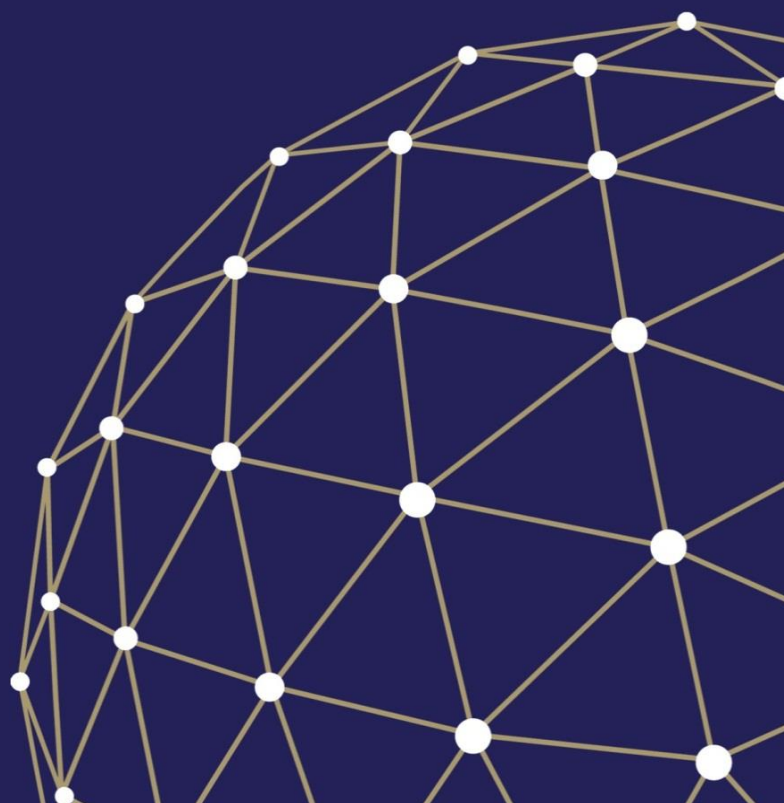




Macroeconomic and financial market developments

January 2016

Background material
to the abridged minutes of the
Monetary Council
of 26 January 2016



Time of publication: 2 p.m. on 10 February 2016

The background material 'Macroeconomic and financial market developments' is based on information available until 22 January 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, usually 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 background materials to the minutes are available on the MNB's website at:

<http://www.mnb.hu/en/monetary-policy/the-monetary-council/minutes>

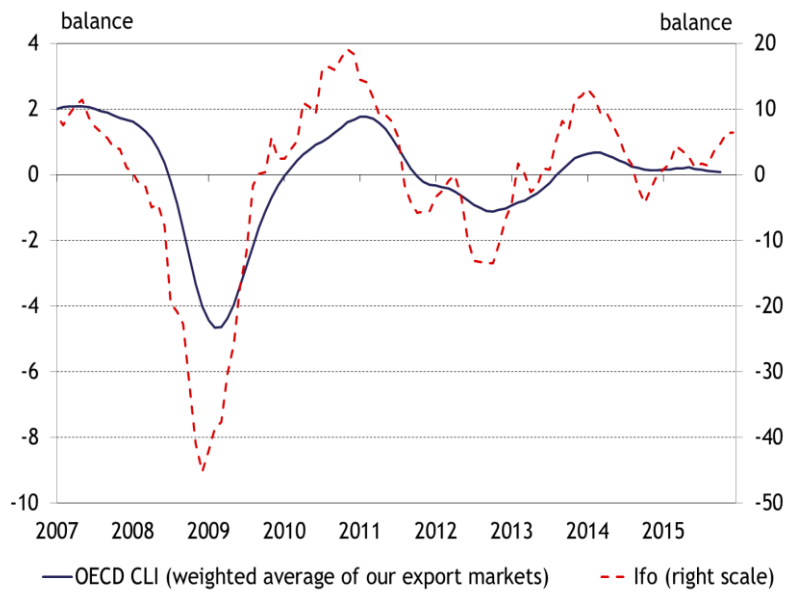
1. MACROECONOMIC DEVELOPMENTS

1.1. Global macroeconomic environment

GDP data in the third quarter of 2015 were generally lower than expected. Based on the incoming indicators, in recent months growth in emerging countries may have decelerated compared to earlier expectations. Growth remains fragile and the regional realignment of the dynamics continues. The outlook for growth of emerging regions slackened compared to the pre-crisis level, while recovery in the developed countries is moderate, but somewhat more stable. Persisting geopolitical tensions may continue to restrain growth in developed countries through weaker demand and economic sanctions.

The euro area economy registered a quarter-on-quarter growth rate of 0.3 per cent in the third quarter of 2015. Forward-looking indicators of economic activity are mixed. In addition, the tense geopolitical situation may also have a negative impact: increasing uncertainty and bilateral economic sanctions may restrain economic activity. These factors may have contributed to the fact that economic expansion continued at a more moderate rate than in previous quarters. Economic growth in Germany, Hungary's most important export partner, was still moderate in the third quarter. Domestic demand in Germany may have grown further, but external market activity may have been curbed by the Russia–Ukraine conflict and the slowdown in demand in Asia. Following the decline in September, German industrial production stagnated in October. Expectations about the German economy (Ifo) improved slightly compared to previous months (Chart 1).

Chart 1: Indicators of activity in Hungary's export markets

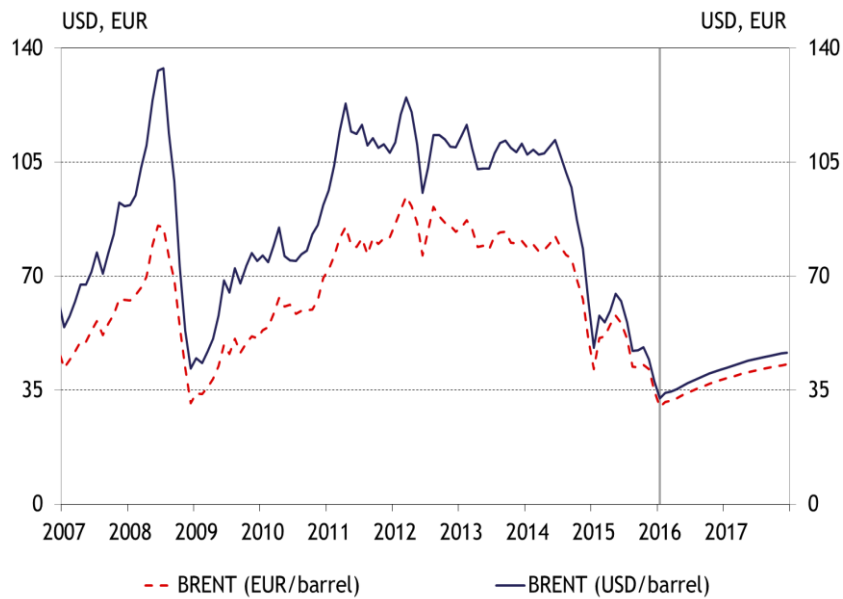


Sources: OECD, Ifo.

The performance of the region was favourable also in the third quarter of this year but, according to monthly indicators of recent months, industrial output is still fragile in the region. The negative effects of the Russia–Ukraine conflict may have had only a limited impact on growth in the CEE region so far, but looking ahead, the expected significant contraction in the Ukrainian and Russian economies may, both directly and indirectly, hinder economic growth in the region.

Inflationary pressure from the world market remains weak. The fall in commodity prices combined with weak global demand are reducing inflation. As a result, inflation rates remained below target in the world's major economies (the euro area annual inflation stood at 0.2 per cent in December). Oil prices in December and January continued to decline (Chart 2; for more details see subsection 2.1).

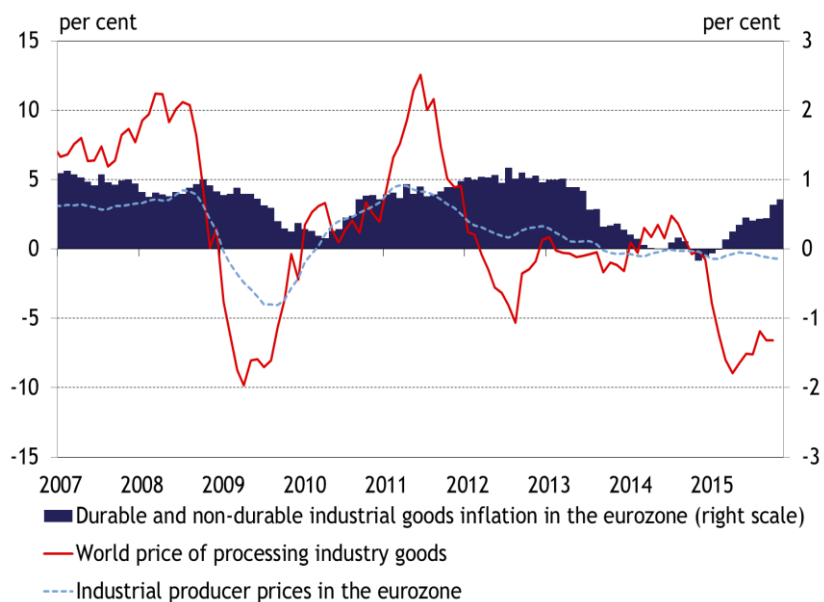
Chart 2: World market price of the Brent crude oil



Source: Bloomberg.

The world market prices of industrial commodities and unprocessed food were moderate, while the prices of manufactured goods somewhat adjusted after a considerable fall (Chart 3).

Chart 3: Industrial producer prices and tradables inflation in the euro area and world market prices of manufactured goods



Sources: Centraal Planbureau (www.cpb.nl), Eurostat, ECB.

1.2. Domestic real economy developments

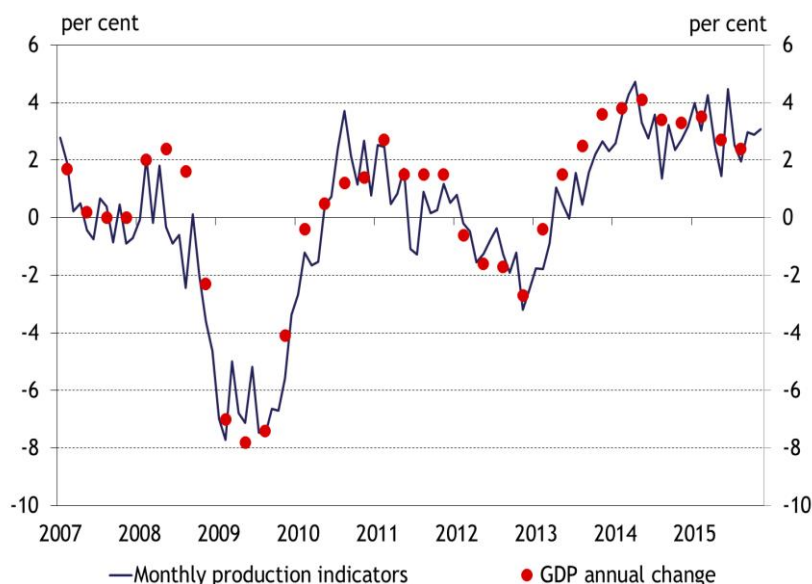
1.2.1. Economic growth

The growth of the Hungarian economy in the third quarter of 2015 continued at more moderate rate than previously. Hungary's GDP increased by 2.4 per cent in annual terms, with a 0.6 per cent growth recorded relative to the previous quarter.

The growth in GDP was primarily supported by the performance of **services and industry**; however economic growth decelerated in the third quarter of this year (Chart 4). **The contribution of agriculture to economic growth was negative** in the third quarter as well, which was attributable to the high base of last year. The **contribution of construction** has gradually **declined** during this year in parallel with the EU funds' absorption approaching its end; the performance of the sector did not have significant contribution to economic growth in the third quarter.

On the expenditure side it was **consumption and net exports** that primarily supported economic growth in the third quarter as well. **Investments declined** year on year, which may have been mainly attributable to the moderate investment activity of the private sector.

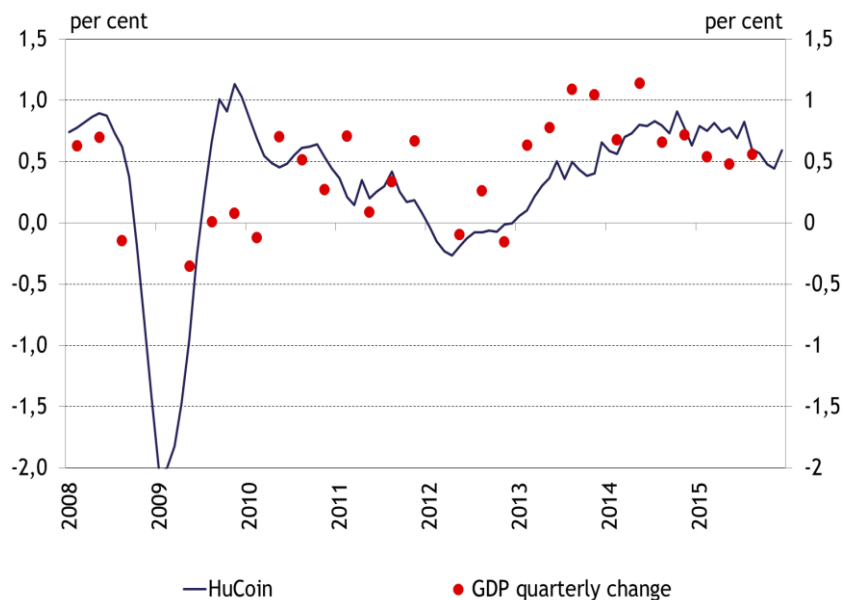
Chart 4: Changes in monthly production indicators* and GDP



* 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.

According to the value of the HuCoin indicator, denoting underlying domestic economic activity, economic growth may pick up in the second half of 2016 following the deceleration of short-term growth (Chart 5).

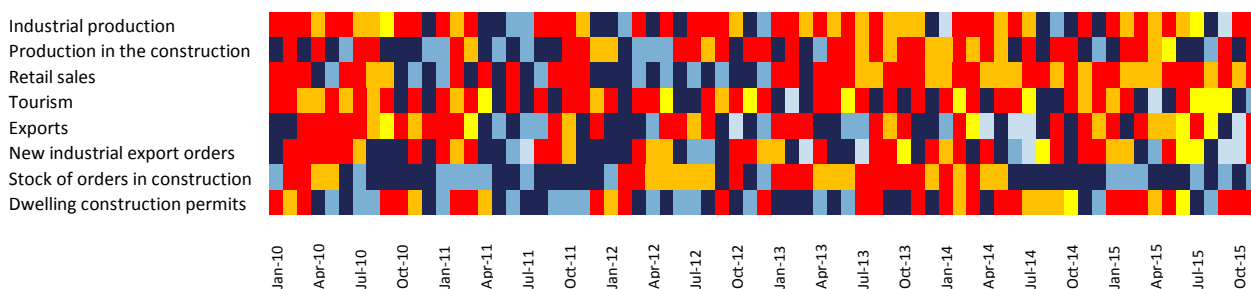
Chart 5: Evolution of HuCoin indicator



Due to the GDP data revision, the historic values of the HuCoin indicator may have also changed.

Sources: HCSO, MNB calculations.

Chart 6: Growth heat map*



* The growth heat map shows the three-month moving averages of the seasonally adjusted monthly growth rates of the most important monthly indicators of activity, using the following colour code: red = grows above the five-year average, at an accelerating rate; orange = grows above the average, at a slowing rate; yellow = grows below the average, at an accelerating rate; light blue = grows below the average, at a slowing rate; blue = falls at a slowing rate; dark blue = falls at an accelerating rate. Source: MNB calculations based on HCSO data.

In November 2015, **industrial output rose by 9.5 per cent year on year**. Based on preliminary data, seasonally adjusted production, excluding the working day effect, **decreased by 1.4 per cent compared to the previous month**. The performance of the manufacturing subsectors

generally picked up year on year; however compared to October there was a deceleration in several sectors. **On the whole, forward-looking indicators point to favourable prospects.** The value of the Eurocoin indicator, denoting underlying economic activity in the euro area, was stable in recent months, while the ESI and Ifo indicators, reflecting the outlooks of the Hungarian and German economy, respectively, increased. In recent months domestic exports developed favourably on the whole, and the level of the German new industrial orders is also past the worst.

Expressed in euro terms, in November 2015 **exports and imports increased by 6.5 and 7.7 per cent, respectively, year on year.** Balance of trade surplus in November was EUR 673 million, thus year on year the balance of trade surplus fell by EUR 36 million. **Year on year the terms of trade further improved in October,** primarily supported by the moderate oil prices.

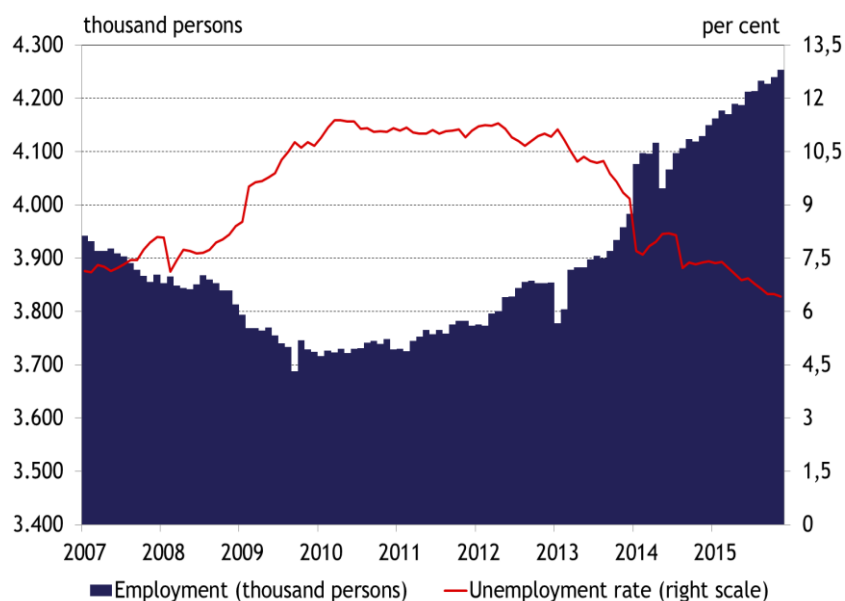
In November 2015, **the volume of construction output decreased by 0.2 per cent year on year,** while the seasonally and working day adjusted figure **rose by 3.8 per cent compared to the previous month.** The volume of new contracts substantially increased in November, as a result of the considerable growth in the number of contracts concluded for the construction of buildings. The growth was supported by contracts concluded for sports facilities, educational and industrial buildings. The performance of the sector is expected to be moderate at the end of 2015, which is attributable both to the decline in the book of contracts in the previous period and last year's high base. Reaching the end of the 2007–2013 EU programming period, the accomplishment of the infrastructural projects financed from EU funds at the end of last year is also reflected by the deceleration in the dynamics of the other buildings main group.

The pick-up in consumption demand observed last year may have continued in the fourth quarter as well. This may be explained by the improving labour market situation and by the increase in real wages as a result of low inflation, as well as by the upswing in retail sales volumes. **In November, according to preliminary data, sales volumes increased by 4.7 per cent year on year, while the increase in turnover was 0.3 per cent compared to the previous month.** In November, retail sales may have increased in a wide range of products. In addition to the non-food consumer durables, food sales also may have made major contribution to the expansion of retail sales volume. Fuel sales increased at a slower rate compared to the previous months.

1.2.2. Employment

According to Labour Force Survey data, **in November 2015 the number of employees in the whole economy rose by 4.1 per cent year on year**. Labour force participation rate continued to increase. Unemployment rate was down to 6.1 per cent in November, while the seasonally adjusted unemployment rate stood at 6.4 per cent. (Chart 7).

Chart 7: Number of persons employed and the unemployment rate

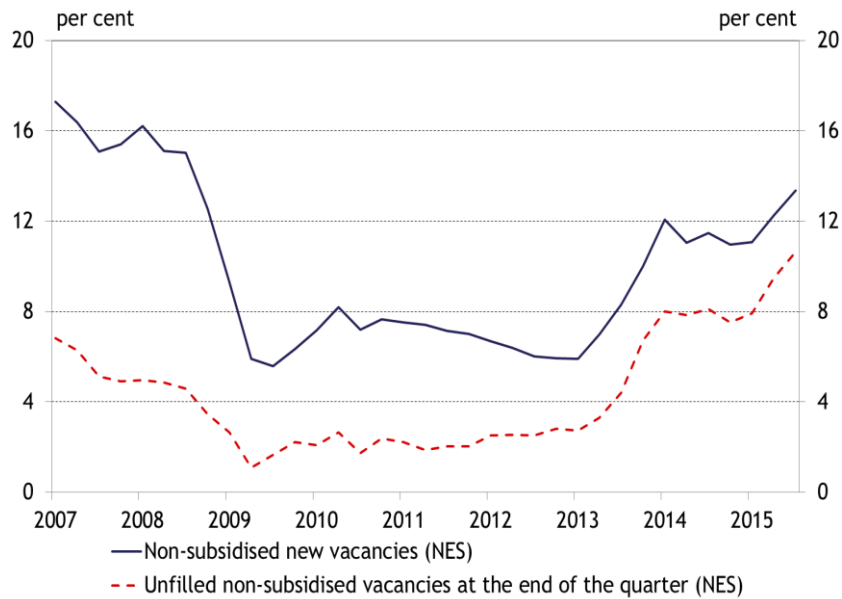


Source: HCSO.

Employment rate in the private sector considerably increased in the third quarter. Within the private sector the growth in employment was related to market services, whereas the number of employees in the manufacturing sector did not change notably. The number of people working in the general government was essentially the same as in the previous quarter.

In November, **the number of newly announced non-subsidised jobs was higher** than in the previous month, and **the end-of-month number of vacant, non-subsidised jobs also slightly increased**. **In recent years the labour market tightness has increased** (Chart 8).

Chart 8: Indicators of labour market tightness



Sources: HCSO (Labour Force Survey), National Employment Service.

1.3. Inflation and wages

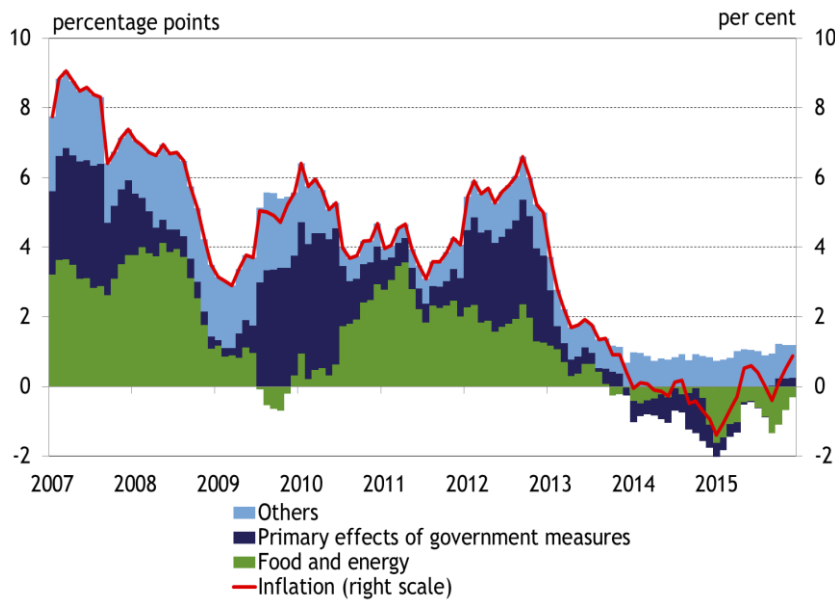
1.3.1. Wages

Annual wage dynamics in the private sector increased in November compared to the previous month. An increase in the wage dynamics could be observed both in the manufacturing sector and in the market service sector.

1.3.2. Inflation developments

In December 2015, inflation was 0.9 per cent, while core inflation was 1.4 per cent and core inflation excluding indirect taxes stood at 1.1 per cent (Chart 9). The current increase in inflation was attributable to the growth in the fuel price index due to the base effect.

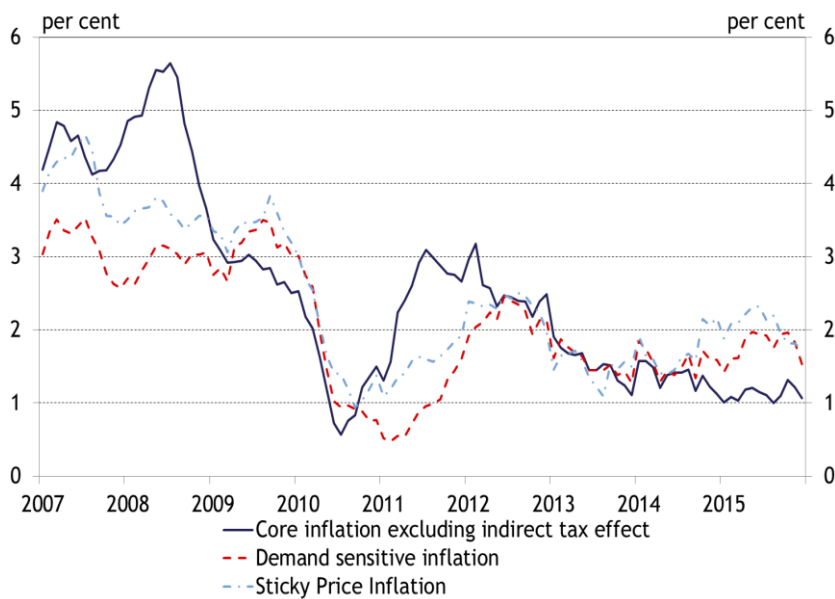
Chart 9: Decomposition of the consumer price index



Source: MNB calculations based on HCSO data.

Underlying inflation indicators continue to point to a moderate inflation environment, which may be attributable to the low level of imported inflation, low oil prices and the magnitude of unutilised capacities(Chart 10). In November 2015, agricultural producer prices rose by 5.5 per cent in annual terms. The domestic sales prices of the sectors producing consumer goods increased by 0.5 per cent relative to the same period of the previous year.

Chart 10: Measures of underlying inflation



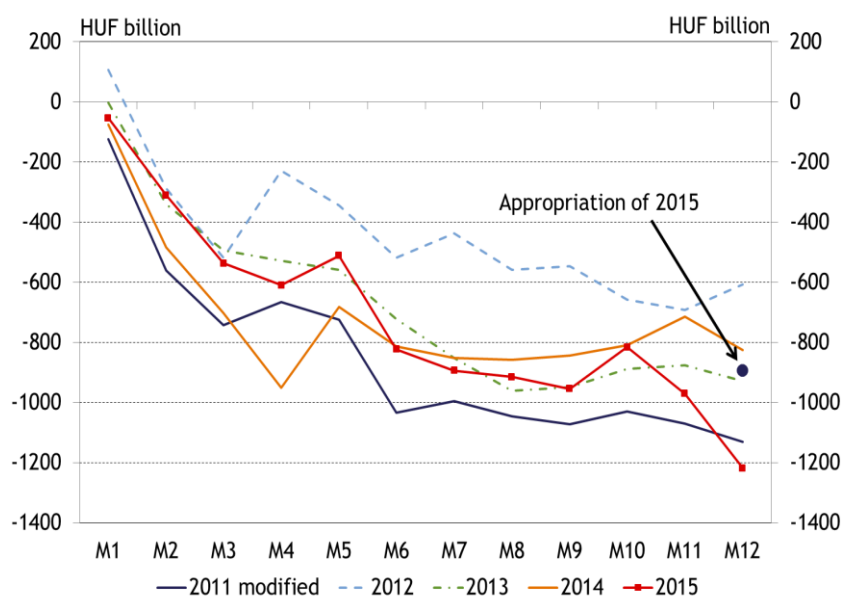
Source: MNB calculations based on HCSO data.

The data received for December was lower than the expectation described in the December Inflation Report, which is primarily attributable to the more moderate price developments of unprocessed food and fuels. The substantial fall in oil prices, seen in recent weeks, represents a downside risk for the short-term forecast of the December Inflation Report. Looking ahead, inflation may significantly fall short of the 3 per cent target and may approximate it only by the end of the forecast horizon.

1.4. Fiscal developments

In December 2015 the central subsystem of the general government registered a deficit of HUF 248 billion, thus the annual cash-based deficit reached HUF 1,219 billion. The deficit in December exceeded that of last December by HUF 136 billion, and it was also higher than the average deficit in the same period of the last three years. (Chart 11). This was attributable to the fact that, although the favourable changes in the underlying trend continued in December as well, certain fiscal expenditures became extremely high, and the EU grants once again fell short of that seen in previous years.

Chart 11: Intra-year cumulative cash balance of the state budget



Source: Hungarian State Treasury.

The tax and contribution revenues of the central subsystem in December 2015 were up by more than HUF 150 billion year on year. Most of the revenue surplus, compared to last year, is attributable to the payments made by the enterprises, the consumption taxes and the wage-related revenues. Expenditures of the central subsystem in December 2015 exceeded last year's

base by HUF 383 billion in total, which is primarily attributable to the net expenditures related to EU grants and the net own expenditures of the spending units and the budget chapters.

1.5. External balance

According to the November data release, the seasonally unadjusted external financing capacity rose to EUR 1.25 billion, with surpluses of EUR 0.45 billion and almost EUR 0.8 billion in the current and capital accounts, respectively.

Financing data signal a similar financing capacity as the real economy, amounting to EUR 1.2 billion. Net external debt decreased by EUR 1.5 billion, accompanied by a minor increase in FDI funds. The increase in direct capital funding in the amount of almost EUR 150 billion took place under an increase in reinvestments and decrease in inter-company loans. Equity investment by non-residents increased more substantially in november – roughly by EUR 400 million – which may be attributable to the sale of the government's block of shares in OTP. The EUR 1.5 billion decrease in net external debt was mostly attributable to the material, almost EUR 1.4 billion, reduction of the government's external debt. The decrease in the government's net external debt was supported by the inflow of the EU transfers and the continued sales of government securities by the non-resident sector. In addition, the banks decreased, while the enterprises slightly increased their net external debt to a minor degree.

2. FINANCIAL MARKETS

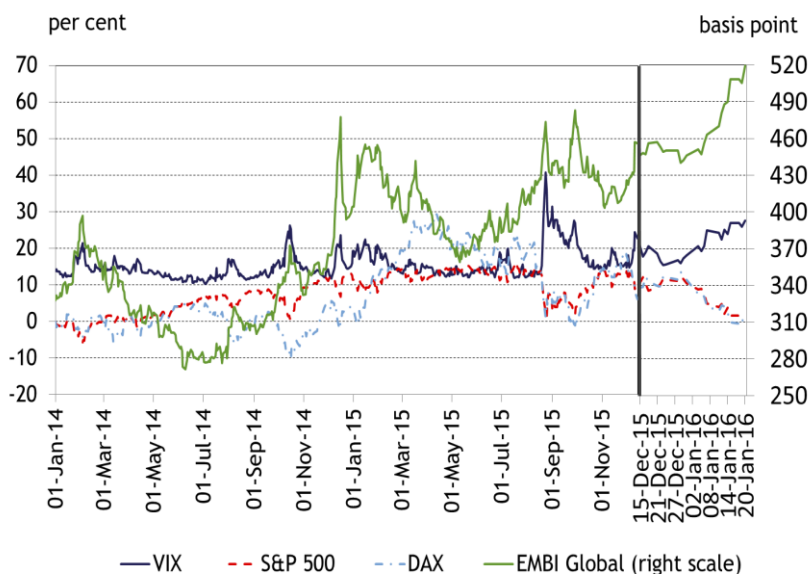
2.1. International financial markets

Market sentiments were primarily driven by the fears related to the deceleration of the Chinese economy, the further decrease in oil prices and the interest rate increase by the Fed in December. By the end of the period the equity markets fell and the perception related to emerging bond markets deteriorated, which was mitigated by the ECB's announcement on easing only to a minor degree (Chart 12). Following the interest rate increase by the Fed, and later as a result of the deterioration in the global investor sentiments, the US stock market indices fell in total by almost 10 per cent since the last interest rate decision. In addition, following the fall in the Chinese stock market index – which dropped by almost 18 per cent – the European and Asian indices also fell significantly. In the foreign exchange market, although the dollar slightly appreciated against the euro after the interest rate increase by the Fed, it adjusted

in the second half of the period, and on the whole it strengthened slightly compared to mid-December only as a result of the ECB's announcement on easing. On the other hand, the appreciation of the Japanese yen was outstanding, which due to the decreasing energy prices and the deceleration of the Chinese economy showed a substantial appreciation of almost 3 per cent.

Global risk appetite deteriorated during the period: the negative sentiment could be perceived both in the equity and the bond markets. The VIX index, measuring stock exchange volatility, rose to 28 per cent by the end of the period from the value of close to 21 per cent measured at the previous interest rate decision, while the EMBI Global Emerging Markets Bond Index increased by 70 basis points, reaching its highest level since the crisis. The fact that gold prices increased by 3.5 per cent and the developed market long-term yields decreased, also reflected the increasing aversion to risk. After the interest rate decision of the Fed the 10-year dollar yields slightly increased, and then closed last month with a decline of 27 basis points, while the German long-term yield and the British yield level fell by 20 and 28 basis points, respectively.

Chart 12: Developed market equity indices, the VIX index (left scale) and the EMBI Global Index (right scale)



Source: Bloomberg.

The Fed decided on an interest rate increase of 25 basis points. In accordance with the expectations, the Fed raised the US base rate for this first time since 2006, which initially was

received favourably by the markets. According to the Fed's minutes, published in the beginning of January, although the FOMC voted for the increase unanimously, the decision was not self-explanatory for some of the members due to the low inflation expectations and the downside risks. Thus the future path of the interest rate increases is still not clear for the market analysts. The market attached zero probability to an interest rate increase in January, 24 per cent to that of in March, and it renders merely one interest rate increase probable for the whole year.

On the other hand, the labour market data published in the reporting period are still favourable, as both the ADP and the NFP employment figures – which measure the change in the employment by the non-farm private sector – caused a major positive surprise compared to the economists' expectations. The number of job openings also reflected favourable labour market trends and the unemployment rate stayed at 5 per cent.

European macro figures also contributed to the deterioration in global sentiments, as mostly unfavourable figures were published during the period under review. The December inflation figures of the euro area fell short of the economists' expectations, as a result of which expectations with regard to further easing by the ECB once again increased. According to Bloomberg's January survey, 61 per cent of the economists expect additional easing measures (this ratio in the December survey was only 40 per cent). 57 per cent of them anticipate the extension of the bond purchase programme, while 53 per cent of them forecast the additional reduction of the deposit rate. The 5-year, 5-year forward inflation expectation rate fell by 14 basis points to 1.56 per cent. In addition, both the euro area Sentix investor confidence index, and the industrial output of November caused disappointment in the period. In addition to the ECB's decision, in line with the expectations, on leaving the interest rate level unchanged, after the communication that suggested easing, the euro slightly depreciated against the dollar, while the European developed stock exchanges responded more spectacularly, by an increase of almost 4 per cent.

The leading Chinese stock market indices fell considerably. The Shanghai Composite index and the Shenzhen Composite index fell by 18 and 21 per cent, respectively, since the last interest rate decision. The fall may have been attributable to several factors. Firstly, investors' concerns related to the deceleration of the growth in the Chinese economy increased after that the official Chinese sources anticipated a lower growth rate for 2016 than in 2015. In parallel with this, the

poor manufacturing figures of December also reflected deceleration. On the other hand, two technical regulations related to equity trading may have also contributed to the fall of the Chinese stock exchanges. Having seen the resulting turbulence at the stock exchange, the Chinese authorities cancelled these regulations; in addition, they also tried to mitigate the decline by government equity purchase and providing central bank liquidity. During the period under review, both the onshore and offshore yuan depreciated against the dollar, by 1.8 and 1.1 per cent, respectively. When the tension peaked in the beginning of January, the volatility of the two currencies increased and the gap between them considerably widened; the Chinese central bank mitigated this by foreign exchange market intervention.

Oil prices plunged to a new historic low of a decade, which may have been primarily attributable to the conflict between Saudi Arabia and Iran. The price of the two oil benchmarks, under volatile trading, fell by almost 25 per cent below USD 30 per barrel, from where it adjusted to USD 30 at the very end of the period. The worsening of the diplomatic relations between Saudi Arabia and Iran made a major contribution to the decline, as a result of which, according to market assumptions, the prospect of an agreement within OPEC on the reduction of extraction decreases. In addition, the decrease in demands through the decelerating growth of the Chinese economy, and the slower than expected reduction of the US production, as well as the high inventory, all pointed to the plunge in oil prices. Commodity prices – with the exception of precious metals – typically also fell during the period under review, as a result of which the currencies of the commodity producer countries also considerably weakened. The South-African rand and the Russian rouble depreciated by 10 and 15 per cent, respectively.

2.2. Developments in domestic money market indicators

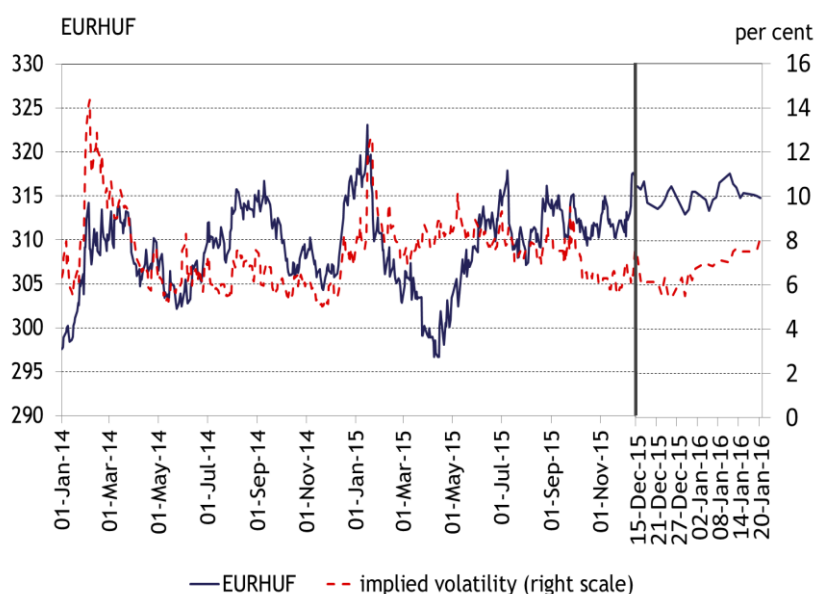
In the past period the domestic asset prices were primarily driven by international factors, but the domestic announcements also had some market-moving impact. In the first half of the period since the previous interest rate decision the domestic financial markets were characterised by slack trading typical during the holidays; however, in the new year the negative sentiments unfolding in the international market generated a temporary decline in asset prices. Of the international factors, the concerns about China and the general aversion to risk attributable to the decrease in oil prices also influenced the domestic markets, although it should be added that the Hungarian money markets proved to be relatively resistant. Of the country-specific factors, the announcement of the central bank made on 12 January caused market

movements first through the market expectations and later on as a result of the changes announced in respect of the monetary policy instruments.

The euro/forint exchange rate fluctuated in a narrow band during most of the period, except when the central bank announced the phase-out of the two-week deposit facility, which caused the quotes to become temporarily more volatile. From the level of 317, observed at the previous interest rate decision, the exchange rate appreciated in the second half of December, followed by a slight depreciation in the beginning of January. As regards the entire period, the forint was traded in a band between 312.5 and 319, **while approaching the January interest rate decision, as a result of the ECB signal, it slightly appreciated close to the exchange rate level of 314** (Chart 13).

In the region, the Romanian lei depreciated to a smaller degree while due to country-specific reasons the Polish zloty depreciated to a larger degree, respectively, the exchange rate of the Czech koruna did not change materially, while the forint slightly appreciated. Apart from a temporary surge, during the period there was no material change in the skewness index related to the forint/euro exchange rate, which signals **that according to the perception of the active agents in the options market the risk of the forint's depreciation against the euro is still low.** The market agents asked by Reuters in the beginning of January expected, in line with the market pricing, a euro exchange rate of around 315, corresponding to the spot price, both for the short term and the longer, one-year period. The regional currencies typically depreciated against the dollar, while the forint exchange rate has not changed.

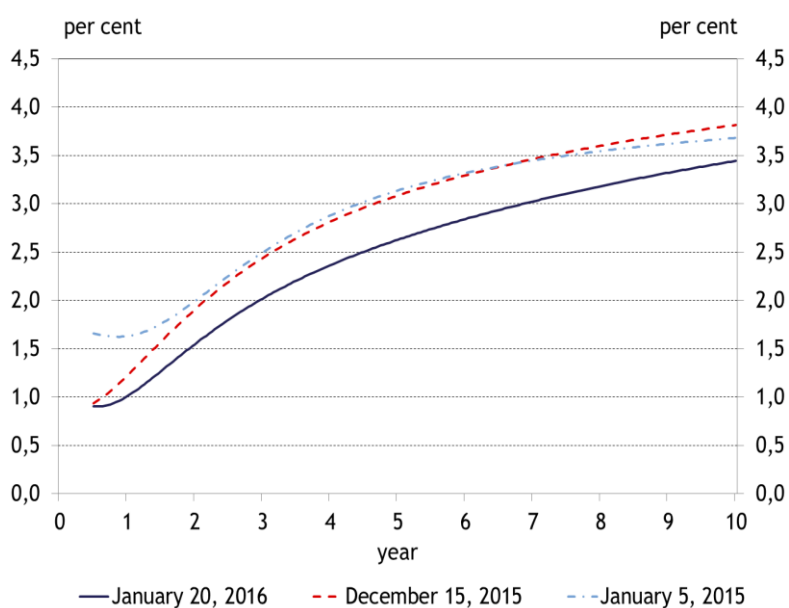
Chart 13: EUR/HUF exchange rate and the implied volatility of exchange rate expectations



Source: Bloomberg.

There was 20-45 basis points downward shift in the government securities market yield curve compared to the previous interest rate decision day (Chart 14). The short-term, 3- and 6-month government securities market benchmark yields increased in the new year by 10-30 basis points; however, later on they managed to adjust partially or in full. On the whole, compared to the previous interest rate decision the 3-month benchmark yield went up by 10 basis points, the 6-month yield stands at similar levels, while there was a more than 20 basis point decrease at the 12-month maturity. On the other hand, the over 1-year maturity yield points showed a material, i.e. 35-50 basis points, decrease in yields. The yield decrease may have been attributable to the MNB's announcement related to the phase-out of the two-week deposit facility, which may generate additional demand for the forint bonds in the forint government securities market. The central bank interest rate swap transactions, extended under more favourable conditions compared to the previous year, also pointed to this direction. Although the future impacts of the transformation of the monetary policy instruments are not yet clear, according to the economists' opinion it may help beat yields, which may have had an impact on the yields after the announcement. This is also supported by the fact that the Hungarian yield decrease outstripped the regional trends: while the Hungarian 10-year yield fell by 38 basis points since mid-December, the Romanian long-term benchmark yield declined to a lesser degree, i.e. by 28 basis points, while Polish yields – partially due to country-specific reasons – increased.

Chart 14: Shifts in the spot government bond yield curve



Sources: MNB, Reuters.

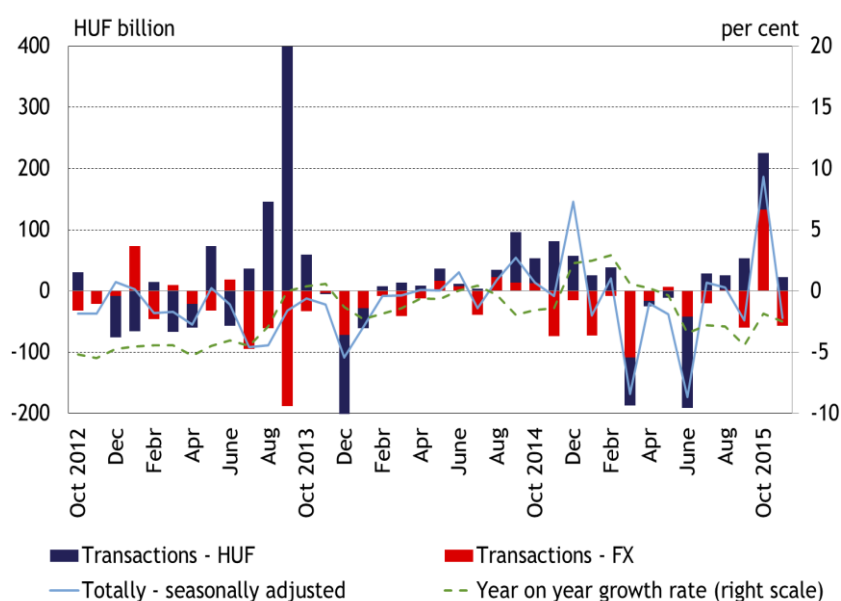
Demand at the short-term government securities auctions during the first half of the period and at the end of 2015 was mixed, followed by a material increase in demands in January. The sale of the 3-month discount Treasury Bills took place under sound demand, with a coverage of 2.5-3; in spite of this, the average yields reached, showed a considerable – i.e. 22 basis points – increase in terms of the entire period. In the new year, the Government Debt Management Agency decided to increase the issuance at the auctions of the 6-week, 3-month and 12-month Treasury Bills. No clear trend developed during the period in the case of the long-term government securities, but it may be stated in general that the auctions were characterised by more moderate, but still satisfactory demand, while yields were rather mixed.

The non-residents' government securities holdings decreased further by roughly HUF 27 billion since the last interest rate decision, resulting in their portfolio falling below HUF 3,900 billion, accounting for a share of around 28.7 per cent within the total forint government bond portfolio of the market. The Hungarian 5-year CDS spread is still quoted by 3 basis points higher, at around 170 basis points. The slight deterioration in the perception of Hungary's risk may have been attributable to the worsening of the global investor sentiment, which is also supported by the international component's spread increase effect identified by our decomposition methodology.

3. TRENDS IN LENDING

In November, outstanding loans to enterprises decreased by HUF 34 billion in total (after seasonal adjustment by HUF 44 billion) (Chart 15). In terms of denomination, forint loans increased by some HUF 23 billion, while foreign currency loans decreased by HUF 57 billion. A major part of the decrease is attributable to the sale of a large bank's receivables. Thus the annual decrease in outstanding loans stood at 2.5 per cent in November, compared to the value of 1.8 per cent measured in October.

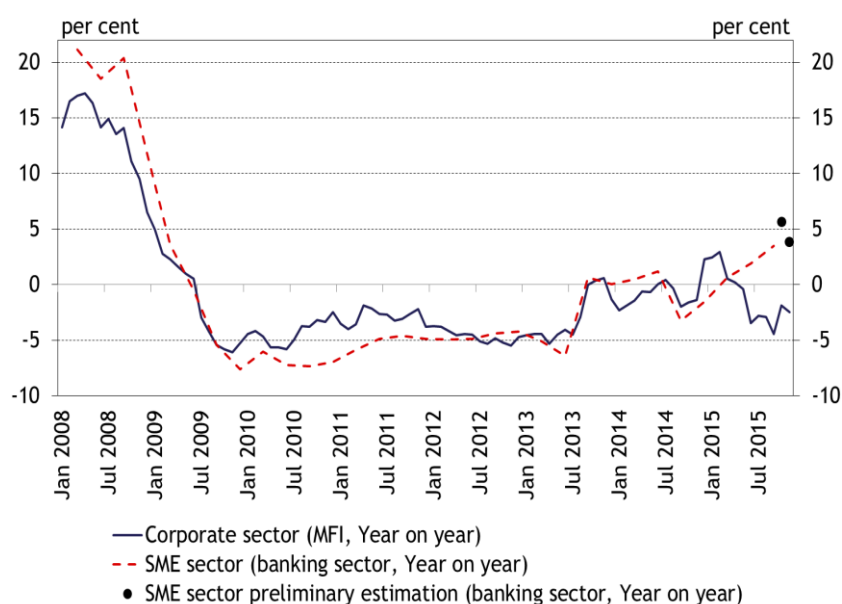
Chart 15: Net borrowing by non-financial corporations



Source: MNB.

Within the corporate loans the outstanding borrowing of the SME segment, according to estimates based on preliminary data, increased by 3.8 per cent in annual terms in November (Chart 16). Loans granted under Pillar I of the FGS contributed by around HUF 35 billion to corporate lending during the month.

Chart 16: Growth rate of loans outstanding of the total corporate sector and the SME sector

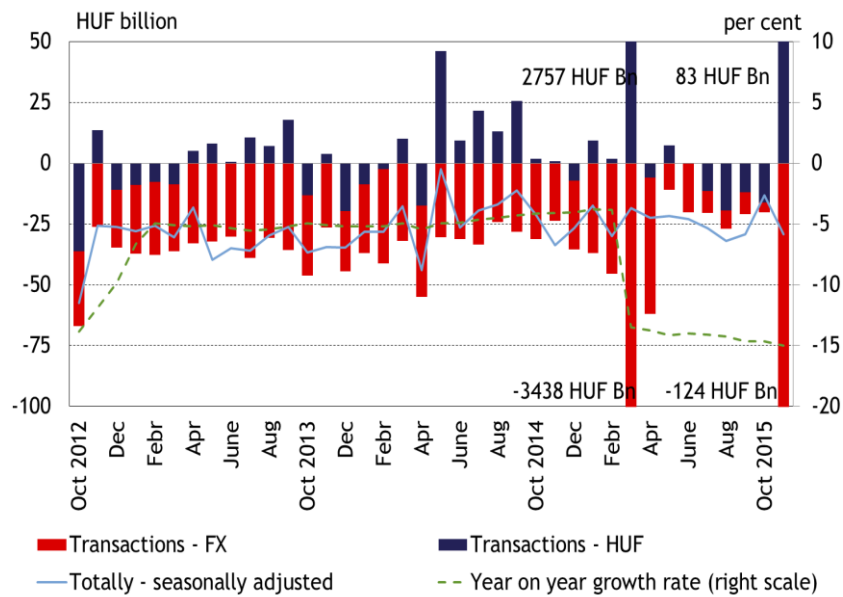


Source: MNB.

In November, in the case of newly granted corporate loans, the average interest rate on small-value forint loans increased, compared to October, by 0.11 percentage point to 4.61 per cent, while the average interest rate on higher-value forint loans decreased by 0.32 percentage point to 1.69 per cent.

Outstanding loans of the household segment vis-à-vis the credit institutions sector as a whole declined by HUF 41 billion as the result of loan transactions (Chart 17). Outstanding forint loans increased by HUF 83 billion, while the foreign currency loan portfolio decreased by HUF 124 billion; this may have been also attributable to the conversion of the car purchase loans and the personal loans into forint. Apart from the foreign currency-forint conversion, due to the settlement of the foreign exchange difference during the conversion into forint, the outstanding borrowing of households fell by HUF 20 billion. In November the annual rate of the portfolio decrease was 15 per cent, while net of the current effect of the settlement and conversion into forint, it was 4.4 per cent.

Chart 17: Net borrowing by households



Source: MNB.

Interest rates on new household loans slightly increased in November. The annual percentage rate of charge (APRC) on forint housing loans increased by 0.06 percentage point to 5.78 per cent, while the APRC on forint general purpose loans rose by 0.39 percentage points to 7.3 per cent.