

Macroeconomic and financial market developments

December 2015

Background material to the abridged minutes of the Monetary Council of 15 December 2015



Time of publication: 2 pm on 23 December 2015

The background material 'Macroeconomic and financial market developments' is based on information available until 11 December 2015.

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 lower than expected. Based on the incoming indicators, in recent months growth in developing countries decelerated compared to earlier expectations. Growth remains fragile surrounded by additional downside risks. The outlook for growth in the world's emerging regions compared to the last period continued to slacken. Persisting geopolitical tensions 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. Forward-looking indicators of economic activity are mixed. In addition, the tense geopolitical situation may also have a negative impact: increasing uncertainty and economic sanctions between certain countries 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 grew further, but external market activity is curbed by the Russia–Ukraine conflict and the decelerating demand in Asia. Following the decline in September, German industrial production stagnated in October. Expectations about the German economy (Ifo) improved slightly relative to previous months (Chart 1).

balance balance 20 10 2 0 -2 -10 -20 -4 -6 -30 -8 -40 -10 -50 2009 2015 2007 2008 2010 2011 2012 2013 2014 —OECD CLI (weighted average of our export markets) -- Ifo (right scale)

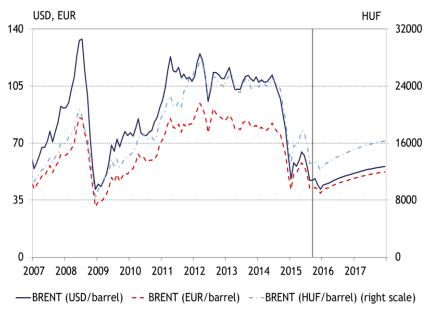
Chart 1: Indicators of activity in Hungary's export markets

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 only had 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 (based on the preliminary data of November the euro area annual inflation stood at 0.1 per cent). Oil prices were volatile in November, and considerably fell in the beginning of December after the decision of OPEC, and looking ahead they may also remain low (Chart 2; for more details see subsection 2.1).

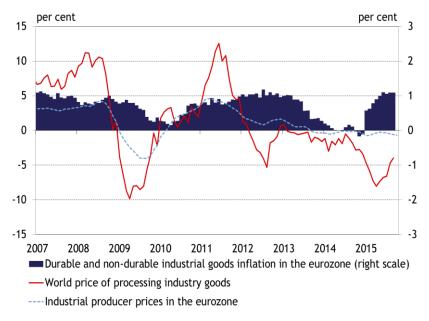
Chart 2: World market price of the Brent crude oil



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 expected. 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 of the Hungarian economy in the third quarter continued at more moderate rate than expected (Chart 4). Deceleration was attributable to the decline in agriculture and the slackening growth in industrial output. The negative contribution of **agriculture** to economic growth is primarily attributable to the high base of last year. The **contribution of construction** has gradually **moderated** 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 was mainly attributable to the moderate investment activity of the private sector.

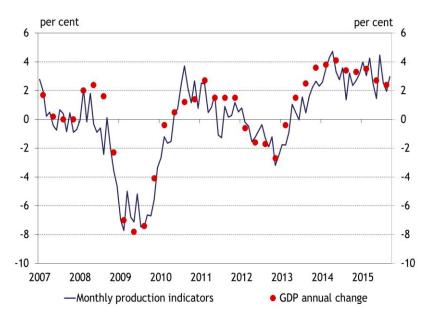


Chart 4: Changes in monthly production indicators* and GDP

^{*} 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.

The value of the HuCoin indicator, denoting underlying domestic economic activity, moderated, which foreshadows deceleration of growth for the first half of 2016 (Chart 5).

per cent per cent 1,5 1,5 1,0 0,5 0,5 0 0,0 -0,5 -0,5 -1,0 -1 -1,5 -1,5 -2,0 -2 -2,5 -2,5 -3 -3.0-3,5 -3,5 2010 2015 2013 2008 2009 2014 -HuCoin GDP quarterly change

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.

Industrial production
Production in the construction

New industrial export orders Stock of orders in construction Dwelling construction permits

Retail sales Tourism Exports

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 October 2015, **industrial output rose by 10.1 per cent year on year**. Based on preliminary data, seasonally adjusted production, excluding the working day effect, increased by **1.7 per cent compared to the previous month**. The **forward-looking indicators still give different signals** with regard to the prospects of industrial production. The values of the ESI and Ifo indicators, reflecting the outlooks of the Hungarian and German economy, respectively, forecast favourable

short-term prospects, while in the medium-term the slowdown in emerging countries and the spill-over effect of the Russia-Ukraine conflict carry downside risk for the performance of the domestic industry. In recent months the gradual deceleration of German industrial production and new orders was observed.

Expressed in euro terms, in October 2015 exports and imports increased by 8.4 and 4.3 per cent, respectively, year on year. Balance of trade surplus exceeded that measured in last October by EUR 320 million. Terms of trade further improved in September as a result of the decreasing import prices.

In September 2015, the volume of construction output increased by 8.1 per cent year on year, while the seasonally and working day adjusted figure rose by 8.3 per cent compared to the previous month. The performance of the sector is expected to be moderate in the second half of 2015, which is attributable both to the steady decline lasting for more than one year in the book of contracts and last year's high base. Approaching the end of the 2007–2013 EU programming period, infrastructural projects financed from EU funds are accomplished gradually in the course of the year.

The pick-up in consumption demand observed early in the year continued in the third quarter as well. This is 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 October, according to seasonally adjusted preliminary data, sales volumes increased by 5 per cent year on year, while the increase in turnover was 0.3 per cent compared to the previous month. In October, retail sales increased in a wide range of products. The contribution of the non-food consumer durables to the increase in retail sales volume was material, while that of the food sales was more moderate than earlier. Fuel sales increased at a slower rate compared to the previous months. Domestic sales increased faster than the average observed in the countries of the region and in the developed European countries.

1.2.2. Employment

According to Labour Force Survey data, in **October 2015 the number of employees in the whole economy rose by 2.4 per cent year on year**. Labour force participation rate slightly increased, while there was no significant change in the unemployment rate (Chart 7).

per cent 13,5 thousand persons 4 300 4 200 12 4 100 10,5 9 4 000 3 900 7,5 3 800 3 700 4,5 3 600 3 3 500 1,5 3 400 2009 2008 2010 2011 2012 2013 2014 2015 2007 Employment (thousand persons) —Unemployment rate (right scale)

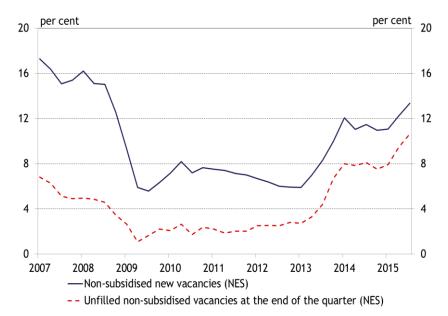
Chart 7: Number of persons employed and the unemployment rate

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 service sector, 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 the third quarter, the number of newly announced non-subsidised jobs increased compared to the previous quarter, and the end-of-month number of vacant, non-subsidised jobs increased. Labour market tightness increased further (Chart 8).

Chart 8: Indicators of labour market tightness (as a per cent of the registered unemployed persons)



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

1.3. Inflation and wages

1.3.1. Wages

Annual wage dynamics in the private sector slightly accelerated in September, reaching 4.3 per cent. Within the private sector, wage dynamics increased in manufacturing compared to the previous month, while in the market services sector it remained unchanged.

1.3.2. Inflation developments

In November 2015, annual inflation was 0.5 per cent, while core inflation was 1.4 per cent and core inflation excluding indirect taxes stood at 1.2 per cent (Chart 9). The current increase in inflation was attributable to the growth in the fuel price index due to the base effect.

per cent percentage points -2 -2 Others Primary effects of government measures Food and energy -Inflation (right scale)

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 September 2015, agricultural producer prices rose by 1.2 per cent in annual terms. In October 2015, the domestic sales prices of the sectors producing consumer goods increased by 0.6 per cent relative to the same period of the previous year.

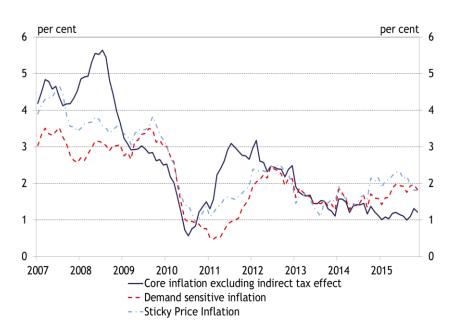


Chart 10: Measures of underlying inflation

Source: MNB calculations based on HCSO data.

The core inflation data received for November were noticeably, while the inflation data were slightly lower than the expectations described in the September Inflation Report; the latter is attributable to the more moderate price developments in alcohol and tobacco prices. Looking ahead, inflation significantly falls short of the 3 per cent target and will approach it only by the end of the forecast horizon.

1.4. Fiscal developments

In November 2015 the central subsystem of the general government registered a deficit of HUF 154 billion, which exceeds the deficit recorded in November last year by HUF 250 billion; in addition, it also exceeds the average deficit registered in the same period of the past three years (Chart 11). This year's favourable changes in the underlying trend continued in November as well; on the other hand, the degree of the pre-financing related to EU grants is much higher than experienced in previous years.

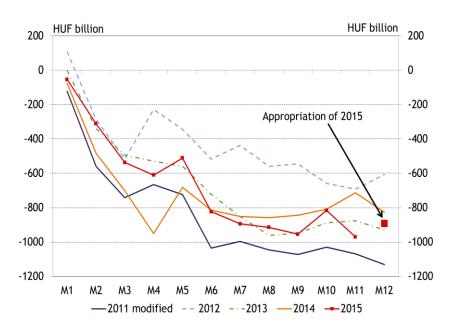


Chart 11: Intra-year cumulative cash balance of the state budget

Source: Hungarian State Treasury.

The tax and contribution revenues of the central subsystem in November 2015 were up by more than HUF 100 billion year on year. Most of the revenue surplus, compared to last year, is attributable to the wage-related revenues. Expenditures of the central subsystem in November 2015 exceeded last year's base by HUF 254 billion in total, which is primarily attributable to the high net expenditures related to EU grants.

1.5. External balance

According to the September data release, the seasonally unadjusted external financing capacity amounted to EUR 1.2 billion, with surpluses of EUR 0.9 billion and EUR 0.3 billion in the current and capital accounts, respectively.

The financing data signal lower, but improving financing capacity, which amounted to EUR 1 billion in September. Net external debt decreased by EUR 1 billion, accompanied by a slight decline in FDI funds. The moderation in direct capital funding in the amount of almost EUR 65 billion took place under a more substantial increase in investments abroad and a minor growth — mainly attributable to the reinvestments of income — in investments in Hungary. Net external debt declined by EUR 1 billion, achieved by a higher debt repayment (1.1 billion) by the banks and lesser financing by the state. The gross external debt of the state decreased further, which in part was attributable to the prepayment of the EIB loan, the continued sales of government securities by the non-resident sector, and in part to the purchase of foreign currency government bonds by the central bank. However, the more substantial fall in foreign exchange reserves was accompanied by net government financing.

2. FINANCIAL MARKETS

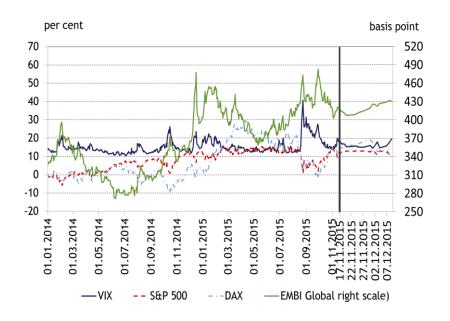
2.1. International financial markets

Market sentiments were primarily driven by the expectations related to the rate-setting meeting of the ECB and Fed, and by the macro data important for the monetary policy of the developed central banks. By the end of the period the developed equity markets fell, and the perception related to emerging bond markets deteriorated (Chart 12). Despite the approaching interest rate increase by the Fed, the US stock market indices – continuing their former trends – increased to a slight degree, i.e. around 1.5-2 per cent, in a good part of the period since the last interest rate decision, and then, including the period-end decrease, returned close to the mid-November levels. The terrorist attacks in Paris faltered the developed European stock exchanges only temporarily. The ECB interest rate decision caused a 4 per cent fall on the German and French stock exchanges, while the unfavourable period-end sentiments caused a decline of 2-7 per cent in the major European equity markets. In foreign exchange market the dollar, similarly to the earlier trends, appreciated against the euro; this trend was changed at the end of the period by the market response to the ECB's announcement. The easing by ECB, which fell short of

the expectations, caused a 3 per cent appreciation in euro, thus the euro/dollar exchange rate was up from 1.06 to over 1.09. In the commodity market the depreciation of industrial metals and fuel continued and accelerated, respectively.

Global risk appetite in the past month was fluctuating, and became negative by the end of the period: although the US stock exchanges proved to be resilient in most of the period, in the last days of the period under review stock market indices started to decline here as well. Meanwhile, sentiments on the European stock exchanges and the emerging bond markets were typically unfavourable. After a temporary decline, the VIX index, measuring stock exchange volatility, rose to 20 per cent at the end of the period from the value of close to 19 per cent measured at the previous interest rate decision, while the EMBI Global Emerging Markets Bond Index increased by 10 basis points. Of the developed market long-term yields the Japanese yen yields essentially stagnated, while the 10-year euro yields rose by 20 basis points right after the ECB interest rate decision, and then slightly fell. On the whole, long-term dollar yields and the British yield levels were down by 5 and 10 percentage points, respectively, compared to the baseline.

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



Source: Bloomberg.

ECB's December rate-setting meeting was surrounded by special attention, as analysts expected the announcement of further substantial monetary easing measures; however, the expectations with regard to the precise composition of these were rather diverse. Prior to the meeting the market priced a 15-20 basis points decrease in the deposit rate, and in addition it expected an increase in the monthly rate of asset purchases, the prolongation of the scheme and the extension of the range of securities eligible for purchase. In the end the ECB reduced the deposit rate by 10 basis points, from -0.2 to -0.3 per cent, while it left the interest rate on the main refinancing operations and the interest rate on the marginal lending facility unchanged. It did not increase the monthly rate of asset purchases, and extended the maturity of the programme merely by six months, from September 2016 to March 2017 (adding that purchases will be continued beyond that date if the economic processes make it necessary). It extended the range of the securities eligible for purchase under the purchase programme to marketable debt instruments issued by regional and local governments, and it also decided to reinvest the principal payments on the securities purchased under the asset purchase programme, as they mature. It also announced to continue conducting the main refinancing operations (MRO) and the three-month longer-term refinancing operations (LTRO) as fixed rate tender procedures until the end of 2017. On the whole, the announced measures fell short of the expectations, which led to the appreciation of the euro by 3 per cent, and an increase in the long-term euro area yields by 10-25 basis points.

The publication of the US macroeconomic figures influencing the Fed decision had market-moving impact in the past weeks. The data published during the period were favourable on the whole. The second estimate of the third quarter GDP data changed to 2.1 per cent compared to the 1.5 per cent stated in the preliminary release, and the published labour market data also outstripped expectations. According to the last comprehensive monthly employment statistics before the central bank's meeting in November, 211 thousand non-agricultural new jobs were created in the United States, while the previous month's figure was also revised upward by 27 thousand. Unemployment rate remained 5 per cent. Apart from the macro figures, the statements made by the Fed policy-makers also significantly raised expectations with regard to the interest rate increase in December. While in mid-November according to the Fed Funds Futures the probability of an interest rate hike in December was 66 per cent, in early December it rose to 78 per cent.

Oil prices plunged to a new historic low of this year shortly after the OPEC meeting in the beginning of December. Although experts reckoned that OPEC would maintain its strategy pursued so far, namely, striving to acquire as high market share as possible, it came as a surprise that OPEC increased its daily production quota of 30 million barrels per day to 31.5 million barrels. (As a matter of fact, production already exceeded the 30 million barrel quota in most of 2015.) Thereby the organisation further strengthens the excess supply already existing in the global oil market, which may be further increased by the growth in the production of Iran, if the international sanctions against Iran are lifted in full. Compared to the beginning of 2015 the price of the WTI and Brent oil fell by 30 per cent, plunging close to USD 37 and USD 40 for WTI and Brent, respectively. Futures quotes for Brent show merely USD 45-50 in 2016 as well, followed by a very slow increase to reach once again a price around USD 60 by 2019. The decline in the price of other commodities, including metals, is also significant: compared to the beginning of the year the price of precious metals dropped by almost 10 per cent, while industrial metal prices declined to a much greater degree, i.e. by 20-40 per cent. This is primarily attributable to the global excessive supply and the concerns with regard to the slowdown of the Chinese economy.

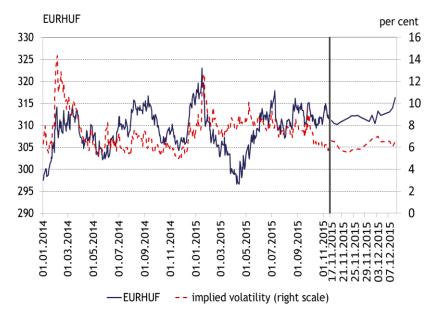
2.2. Developments in domestic money market indicators

In the past period the domestic asset prices were primarily driven by international factors. Of the international factors, the smaller than expected monetary easing measure of the ECB caused a slight depreciation in the forint and an increase in yields, followed by another minor depreciation at the end of the period. Of the domestic factors, neither the affirmation of the Fitch rating, nor the economic policy communications by the central bank and the government had any major market-moving impact.

The euro/forint exchange rate fluctuated in a narrow band during most of the period, while in the last days it started to depreciate slightly compared to the initial level (Chart 13). At the end of the period the positive expectations related to the ECB announcement, and then the smaller than expected easing, generated volatility in the forint exchange rate. Taken together, in the region the depreciation of the Romanian lei was similar to that of the forint, while that of the Polish zloty was somewhat higher. Although the skewness index slightly increased during the last three weeks, it is still at its historic low, that is according to the perception of the active agents in the options market the risk of the forint's depreciation against the euro is low in

historic comparison. The regional currencies typically appreciated against the dollar; this appreciation was 1.4 per cent in the case of the forint.

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



Source: Bloomberg.

There was 10-20 basis points upward shift in the government securities market yield curve compared to the previous interest rate decision day (Chart 14). In the short-term segment the three-month yield slightly decreased, accompanied by almost constant quotes for the six-month papers. Starting from the 1-year maturity an increase of 15-20 basis points was observed. Roughly half of the yield-increase is attributable to the smaller-than-expected easing by the ECB.

per cent per cent 4,5 4,5 4,0 4,0 3,5 3,5 3,0 3,0 2,5 2,5 2,0 2,0 1.5 1,5 1,0 1,0 0,5 0,5 0,0 0,0 2 3 5 8 9 10 year -09 December 2015 -- 17 November 2015 - - - 05 January 2015

Chart 14: Shifts in the spot government bond yield curve

Sources: MNB, Reuters.

Demand at the government securities auctions during the period were mixed. In the beginning of the period the discount Treasury Bills sales were accompanied by sound demand, resulting in declining yields and issuance in excess of the plan. However, demands started to decrease in December, in response to which the Government Debt Management Agency reduced the issuance. Demand at the government bond auctions was steadily high, which on the whole resulted in fund raising above the plan.

The non-residents' government securities holdings decreased by roughly HUF 65 billion since the last interest rate decision, resulting in their share falling below 29 per cent within the total forint government bond portfolio of the market. The Hungarian 5-year CDS spread is still quoted around 162 basis points. On 20 November Fitch affirmed Hungary's "BB+" rating and the positive outlook, and reported further improvement in most of the key rating drivers since the last improvement of the outlook in May.

3. TRENDS IN LENDING

In October, outstanding loans to enterprises increased by HUF 225 billion in total (after seasonal adjustment by HUF 186 billion) (Chart 15). In terms of denomination, forint loans increased by HUF 93 billion, while foreign currency loans rose by HUF 132 billion. Part of the disbursements may have originated from the drawdown of earlier loan contracts or credit

facilities, which in October have offset the decline that took place in the first half of 2015. Thus the annual decrease in outstanding loans stood at 1.8 per cent in October, compared to the value of 4.4 per cent measured in September. Loans granted under Pillar I of the FGS contributed by around HUF 66 billion to corporate lending during the month.

per cent 20 **HUF** billion 400 300 15 200 10 5 100 -5 -100 -200 -10 Aug 2015 Aug Oct 2013 Dec Febr Febr Apr Oct 2014 201 Sct Sct Transactions - HUF Transactions - FX -Totally - seasonally adjusted - - Year on year growth rate (right scale)

Chart 15: Net borrowing by non-financial corporations

Source: MNB.

In October, in the case of newly granted corporate loans, the average interest rate on small-value forint loans stood at almost the same level as in September, i.e. 4.5 per cent, but the average interest rate on higher-value forint loans decreased by 0.49 percentage point to 2.01 per cent.

Outstanding loans of the household segment vis-à-vis the credit institutions sector as a whole declined by HUF 20 billion as the result of loan transactions (Chart 16). Forint loans outstanding and total foreign currency loans fell by HUF 16 billion and HUF 4 billion, respectively. The annual rate of decline in the loans outstanding was 14.7 per cent in October, while this value would be 4.4 per cent without the one-off effect of the settlements. The volume of gross new loans lent by the entire sector of credit institutions to households amounted to HUF 72 billion in total, corresponding to an increase of 25 per cent year on year, net of the refinancing loans disbursed after the conversion of foreign currency loans into forint.

milliárd forint 10 50 2757 Mrd Ft 25 5 0 0 -5 -25 -50 -10 -75 -15 -3438 Mrd Ft -100 -20 aug. jún. 2015.okt. 2014.okt. ■Tranzakciók - deviza Tranzakciók - forint -Összesen - szezonálisan igazított – – Éves növekedési ütem (jobb skála)

Chart 16: Net borrowing by households

Source: MNB.

The decrease in the interest rates on new household loans stopped in October. The annual percentage rate of charge (APRC) on housing loans increased by 0.03 percentage point to 5.72 per cent, while the APRC on general purpose loans rose by 0.04 percentage points to 6.91 per cent.