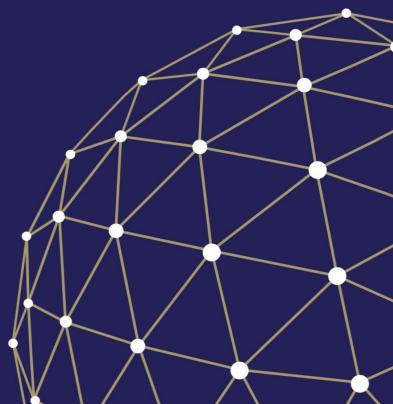


Macroeconomic and financial market developments

November 2015

Background material to the abridged minutes of the Monetary Council meeting 17 November 2015



Time of publication: 2 p.m. on 2 December 2015

The background material 'Macroeconomic and financial market developments' is based on information available until 13 November 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, but 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/monetaris-politika/a-monetaris-tanacs/kamatmeghatarozo-ulesek-roviditett-jegyzokonyvei

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 may have decelerated compared to earlier expectations. Growth remains fragile surrounded primarily by downside risks. The outlook for growth in the world's emerging regions compared to pre-crisis levels has slackened. 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. The forward-looking indicators of economic activity show a mixed picture. 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. The German trade data from August signalled considerable deceleration. In addition, both industrial orders and industrial production slackened in August and September. Expectations concerning the German economy (Ifo) have slightly improved compared to the previous months (Chart 1).

Balance Balance 4 20 2 10 0 -2 -10 -20 -4 -30 -6 -8 -40 -10 -50 2009 2010 2011 2012 2013 2014 2008 --- OECD CLI (weighted average of our export markets) -

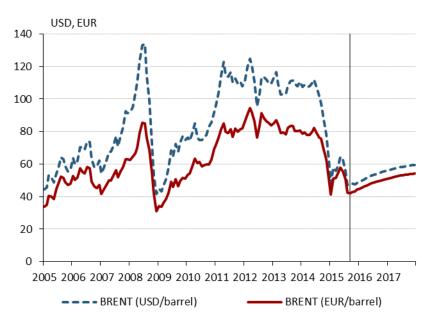
Chart 1: Indicators of activity in Hungary's export markets

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 (based on the preliminary data of October the euro area inflation stood at 0.0 per cent). In October, oil prices were volatile, but on the whole they have not changed significantly since the last rate-setting meeting. (Chart 2; for more details see subsection 2.1).

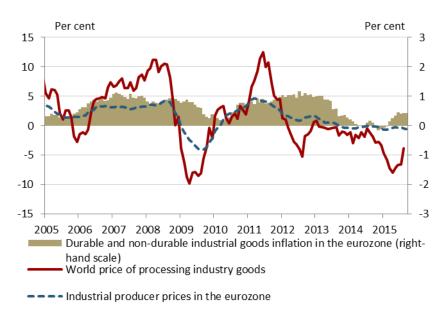
Chart 2: World market price of the Brent crude oil



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 was up 2.3 per cent year-on-year, with a 0.5 per cent growth recorded relative to the previous quarter.

Economic growth decelerated in the third quarter of this year (Chart 4). The short-term output indicators forecast moderate growth for the past months, mostly due to the deceleration in the performance of the industry and construction.

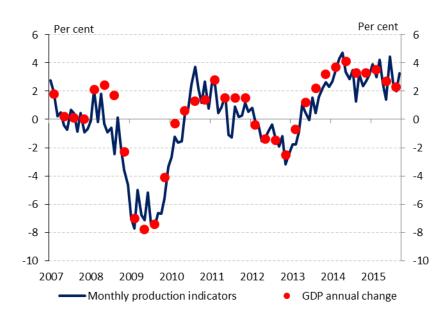
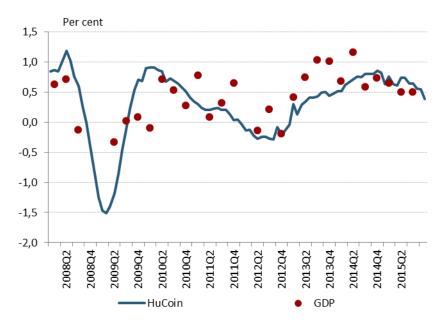


Chart 4: Changes in monthly production indicators* and GDP

The value of the HuCoin indicator, denoting the underlying economic activity processes of the domestic economy, also signals the deceleration of the short-term growth in the third quarter (Chart 5).

^{*} 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 5: Evolution of HuCoin indicator

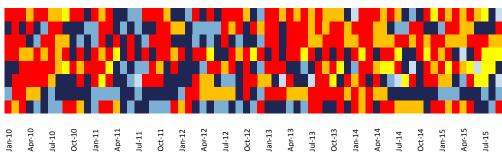


The HuCoin is a non-revising time series, while the GDP is a time series revised and adjusted by the HCSO seasonally and for the calendar effect. Sources: HCSO, MNB calculations.

The growth experienced in the third quarter may have been supported primarily by the performance of industry, as well as wholesale and retail trade, accommodation and food service activities. Economic expansion may have been slower than in the previous quarters, which may primarily be attributable to the decelerating performance of the industry and the more moderate external trade processes, in accordance with the worsening of the global demand conditions.

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 September 2015, industrial output rose by 7.8 per cent year on year. Based on preliminary data, seasonally adjusted production, excluding the working day effect was up 2.9 per cent compared to the previous month. On the other hand, the quarterly industrial production data slightly fell short of the expectations. In September production rose in most of the manufacturing subsectors compared to August. Of the major subsectors, the output of machinery and metal industry increased considerably, while there was a moderate growth in the performance of food production and light industry. Both domestic and export industrial sales increased year on year. Overall, the forward-looking indicators suggest the deceleration of output in the short run. The value of the Eurocoin indicator, denoting the underlying economic activity processes of the euro area, has decreased in October compared to the previous months, similarly to the value of the Hungarian ESI. In addition, both the Hungarian and German industrial orders decreased compared to the previous month. The industrial export demand situation is somewhat qualified by the fact that despite the weaker performance of the German industry, new export orders of the domestic industry once again showed signs of recovery.

Expressed in euro terms, in September 2015 exports and imports increased by 5.6 and 8.2 per cent, respectively, year on year. Balance of trade surplus falls short of that measured in last September by EUR 126 million. Import prices slightly decreased in August, while export prices stagnated compared to the previous month, resulting in improved terms of trade.

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 may be 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 may be accomplished gradually in the course of the year.

The pick-up in consumption demand observed early in the year may have continued in the third 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 September, according to preliminary data, sales volumes increased by 5.4 per cent year on year, while the increase in turnover was 0.6 per cent compared to the previous month. In September, retail sales may have increased in a wide range of products. In addition to the non-

food consumer durables, food sales also made major contribution to the expansion of retail sales volume. Similarly to the trends observed in previous months, fuel sales continued to increase on year-on-year terms. Domestic sales increased at a higher rate 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, the number of employees in the whole economy continued to increase in third quarter. Labour force participation rate slightly increased, while there was a major fall in unemployment (Chart 7).

According to preliminary data, employment rate in the private sector considerably increased in the third quarter. Within the private sector the growth in employment was related to the 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.

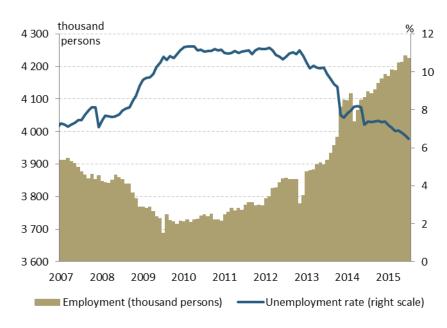


Chart 7: Number of persons employed and the unemployment rate

Source: HCSO.

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 also continued to rise. Labour market tightness increased further (Chart 8).

Chart 8: Indicators of labour market tightness

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

Non-subsidised new vacancies (National Employment Service, right scale)

1.3. Inflation and wages

1.3.1. Wages

In August the annual wage dynamics in the private sector was similar to that of the previous month. Within the private sector wage dynamics slightly increased in manufacturing compared to the previous month, while in the market services sector it did not change notably.

1.3.2. Inflation developments

In October 2015, inflation was 0.1 per cent, while core inflation was 1.5 per cent and core inflation excluding indirect taxes stood at 1.3 per cent (Chart 9). The increase in inflation is attributable to the fact that the fall in the regulated fuel prices of last autumn is not included in the base, while the higher core inflation is due to the increase in the price index of processed food and industrial goods.

Percentage points Percentage points 10 10 8 8 6 6 4 4 2 2 0 -2 -2 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 Primary effects of government measures Food and energy Others Inflation (per cent)

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. The domestic sales prices of the consumer goods sectors declined by 0.1 per cent year on year.

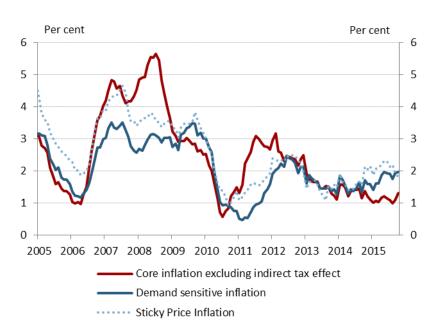


Chart 10: Measures of underlying inflation

Source: MNB calculations based on HCSO data.

The data received for October were practically in line with the expectations described in the September 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 October 2015 the central subsystem of the general government registered a surplus of HUF 138 billion, which exceeds the surplus recorded in October last year by HUF 103 billion; in addition, it also exceeds the average surplus registered in the same period of the past three years (Chart 11). Favourable changes in the underlying trends continued in October as well, and – contrary to the previous months – EU funding was channelled into the budget in higher amounts.

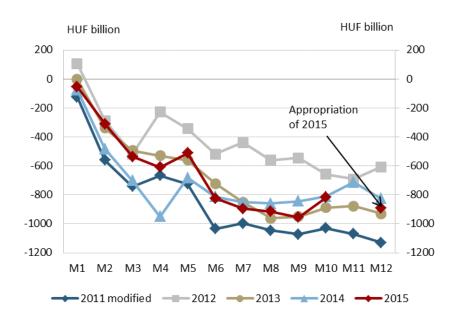


Chart 11: Intra-year cumulative balance of the state budget

Source: Hungarian State Treasury.

The revenues of the central subsystem in October 2015 were up by HUF 100 billion year on year. Most of the revenue surplus, compared to last year, is attributable to the payments made by the enterprises and the wage-related revenues. Expenditures of the central subsystem in October essentially corresponded to last year's base.

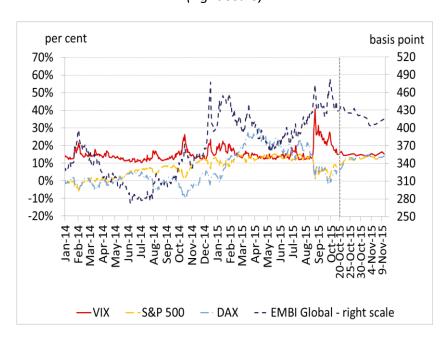
2. FINANCIAL MARKETS

2.1. International financial markets

In the recent period the global risk indictors returned to their August pre-increase level, and with some minor swings — which were mostly attributable to the shifts in the expectations related to the development of the ECB's and Fed's monetary policy — they slightly decreased. The stock market indices of the developed markets continued their slow rise: since the last interest rate decision an increase of 3-5 per cent was observed in the American, European and Asian capital markets. As a result of the strengthening expectations related to the interest rate increase by the Fed in December, the emerging market indices performed more weakly, while the foreign exchange market quotes were dominated by the appreciation of dollar and the depreciation of euro. In the commodity market, industrial commodity, precious metal and fuel prices slightly decreased. Market sentiments were mostly driven by the communications related to the rate-setting meetings of the ECB and Fed, and the publication of the macro data presumed to influence the monetary policy of the developed central banks. The statistics published in the Asian markets still forecast the deceleration of economic growth.

Global risk appetite continued to improve in October as well, albeit to a lesser degree than seen in the previous month. There was a moderate decrease in most of the risk indices during the month: the VIX developed stock exchange volatility index fell close to 15 points from 16-17 points measured at the interest rate decision of October, while the EMBI Global Emerging Markets Bond Index returned to around 415 basis points after a fall of 15 basis points. There was an upward shift in the developed market long-term yields: the 10-year dollar yields were up by 25 basis points, while the euro and Japanese yen yields for the same maturity stagnated. On the other hand, the euro/dollar 1-month implied volatility increased during the period, which may be attributable to the massive depreciation of euro (Chart 12).

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



Source: Bloomberg.

In accordance with the expectations, the Fed did not change its policy rate on its rate-setting meeting in October, while the wording of the published statement suggested that tightening would follow in the near future. As a result of the communication in the statement, investors deem most likely that the first interest rate hike will take place in December and they strongly focused on the publication of the macroeconomic data influencing the decision. On the whole, the US macroeconomic figures published in the period were a positive surprise for the economists. Although the third-quarter GDP figure fell to 1.5 per cent from 3.9 per cent measured in the previous quarter, the labour market data are well above the expectations. That is, in October more than 270 thousand – instead of the expected 180 thousand – non-agricultural new jobs were created in the United States, accompanied by the fall of unemployment rate to 5 per cent. The latest labour market data and the statements made by the Fed policy-makers significantly raised the economists' expectations with regard to the interest rate increase in December, and there was also a major shift toward to the year-end interest rate increase in the price setting of the market. According to the Fed Funds Futures the probability of an interest rate hike in December rose to 66 per cent.

The market paid special attention to the ECB's October rate-setting meeting. Preliminary expectations deemed likely that the communication would lay the foundation for the

expansion of the asset purchase programme or for the introduction of other easing measures, and indeed the ECB's communication with regard to its intention to ease the monetary stance was in line with the expectations. According to the statement of President Draghi, at its December meeting the ECB will revise the monetary policy of the euro area, and if it is necessary, it is able and willing to ease the monetary stance. Meanwhile, securities in the amount of EUR 63.7 billion were purchased in October within the framework of the ECB's asset purchase programme, which is the highest monthly purchase in the history of the QE in the euro area.

The continued diverging monetary policy stance of the Fed and ECB was primarily reflected in the higher volatility of the EUR/USD cross rate. Based on the Fed's communication – suggesting a tightening earlier than expected – after the interest rate decision and the confirmation of ECB's commitment to easing, the euro depreciated against the dollar by 5-6 per cent in total. In addition to the euro, the dollar also considerably appreciated against other developed currencies (Japanese yen, British pound) and the emerging market currencies; in parallel with the strengthening of the dollar the world market price of oil fell by USD 3-4. The quote for American WTI fell from USD 45-46 per barrel registered a month ago close to USD 43, while the price of the Brent crude oil was down to USD 46-47 from USD 50 that characterised the last days of October.

The Japanese data published in the period under review were distinctly poor: the annual growth of exports was 0.6 per cent instead of the expected 3.8 per cent, thus the balance of trade also relapsed into a massively negative domain. The market interpreted the figure as a stronger than expected impact of the deceleration of the Chinese economy on its trading partners. The disclosure of the data led to the strengthening of market expectations with regard to further monetary stimulus in Japan and the chances for yet another measure to be taken by the People's Bank of China also increased. Concerns were not mitigated by the fact that, in accordance with the expectations, the Chinese economy increased by 6.9 per cent in the third quarter, which is the lowest figure since the crisis; on the other hand, the inflation rate was a negative surprise (1.3 per cent) and producer prices fell by 5.9 per cent in October as well.

As regards the one-off events the focus was on the developments in the region and in Turkish politics (elections in Poland and Turkey, and tensions in the internal affairs of Romania). In Poland the election was won, in accordance with the expectations, by the Law and Justice (PiS) party and the plans of the new party – forming the government alone – with regard to fiscal easing aimed at increasing GDP and its proposal to convert the foreign currency loans, led to the

notable depreciation of zloty. In Turkey the present governing party acquired absolute majority in the snap elections, which was a positive surprise for the markets: at the news of the election results Turkish lira appreciated by 4-5 per cent against both dollar and euro. In Romania the prime minister resigned as a result of the street protests, which led to the dissolution of the government coalition. Political tensions led to the depreciation of the Romanian lei and the fall of the stock exchange; on the other hand, the Romanian CDS did not reflect the material deterioration in the perception of Romanian risk.

2.2. Developments in domestic money market indicators

The domestic markets were influenced both by the international and the country-specific processes. Of the international events, Fed's communication in October and the macro figures related to the first US interest rate increase had a weakening impact on forint, while the domestic events were dominated by the communication pointing to easing by the central bank and the new programmes introduced by the MNB.

Of the macro figures it is worth mentioning the unemployment figures of July-September, which registered a larger than expected decrease, the improving GKI economic indicators and inflation, which exceeded both the expectations and its value registered in the previous month. On the other hand, based on the flash estimates, the external trade balance in September fell short of the expected EUR 1,100 million by EUR 280 million. However, only the communication of the inflation data had a minor forint appreciation impact, while the central bank's communication pointing to easing had a minor depreciating effect on forint.

The euro/forint exchange rate initially fluctuated in a crawling band, and then in the second half of the period it started to depreciate (Chart 13). The euro/forint exchange rate fluctuated in the band between 309 and 315 since the last interest rate decision, and then it depreciated to the level of 315, which was a greater weakening than that characterised the regional currencies, followed by a minor adjustment close to the level of 312 by the end of the period. The depreciation of both the Romanian lei and Polish zloty fell short of the forint's depreciation of close to 0.5 per cent, while the Czech koruna stagnated. During the reporting period, the regional currencies depreciated considerably, i.e. by 5-6 per cent, against the dollar, which was attributable to the strengthening of the expectations with regard to Fed's first interest rate increase in December.

The depreciation of forint in part may have also been attributable to the central bank's communication pointing to easing, and the announcement of the new programmes of the MNB, also suggesting the easing of the monetary stance. The new Growth Supporting Programme (GSP) comprises of the third pillar of the Funding for Growth Scheme, representing its gradual phase-out, and the Market-based Lending Scheme (MLP), which will assume part of the banks' interest rate risk and reduce the capital requirements for the SME loans.

forint/euro Per cent 16 EURHUF · implied volatility (right scale)

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

Source: Bloomberg.

The long-term segment of the government securities market yield curve increased by 5-8 basis points, while there was an upward shift of typically 10-15 basis points in the medium-term segment. The short-term segment reflected an increase of 25-30 basis points (Chart 14). Thus the yield curve somewhat flattened on the whole, and its short-term segment approximated the base rate.

per cent per cent 4.5 4.5 4 4 3,5 3 3 2,5 2,5 2 2 1,5 1,5 1 1 0,5 0,5 0 0 0 1 3 5 6 7 9 10 vear November 11, 2015 -October 20, 2015 — — January 5, 2015

Chart 14: Shifts in the spot government bond yield curve

Sources: MNB, Reuters.

Demand at the government securities auctions during the period showed a mixed picture. At the discount Treasury bill auction the Government Debt Management Agency reduced the planned issuance of typically HUF 20 billion on several occasions, which was the consequence of the generally low demand. In parallel with this, the average yields achieved at the auctions of short-term securities showed an increasing trend. The average yield of the 3-month discount Treasury bill increased by 20 basis points close to 0.8 per cent, while that of the 12-month discount Treasury bill reached 0.85 per cent at the last auction after an increase of almost 35 basis points. On the other hand, demands were strong for the longer-term issuances, and the Government Debt Management Agency raised the accepted volume by HUF 19.5 billion on the whole, in net terms, during the reporting period.

The non-residents' government securities holdings decreased by roughly HUF 86 billion since the last interest rate decision, resulting in the non-resident sector's share falling below 30 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 one other hand, the Moody's credit rating agency changed the outlook on the Ba1 government bond rating of Hungary to positive from stable, explained by the decreasing government debt and the declining share of foreign-currency liabilities in the government's debt stock, the decreasing volatility of the forint and the sustainable growth.

3. TRENDS IN LENDING

In September, as a result of transactions, outstanding loans to non-financial corporations from the credit institutions sector decreased by a total HUF 6 billion (seasonally adjusted by HUF 48 billion) (Chart 15). In terms of denomination, forint loans increased by some HUF 54 billion, while foreign currency loans decreased by HUF 60 billion. Thus the annual rate of decline in loans outstanding amounted to 4.4 per cent. Loans granted under Pillar I of the FGS contributed by around HUF 22 billion to corporate lending during the month.

In September, 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 August, i.e. 4.46 per cent, but the average interest rate on higher-value forint loans increased by 0.9 percentage point to 2.5 per cent.

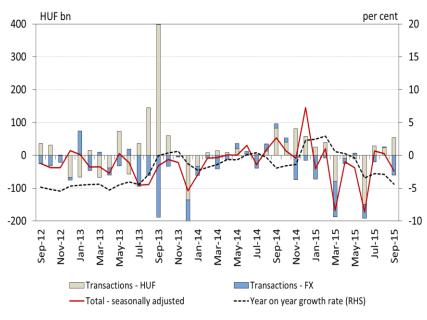


Chart 15: Net borrowing by non-financial corporations

Source: MNB.

Outstanding loans of the household segment declined by HUF 21 billion as the result of loan transactions (Chart 16). Forint loans outstanding and total foreign currency loans fell by HUF 12 billion and HUF 9 billion, respectively. The annual rate of decline in the loans outstanding roughly corresponded to the August figure, and stood at 14.6 per cent. The volume of gross new loans lent in September by the entire sector of credit institutions to households amounted to HUF 79

billion in total, which is an increase of 40 per cent year on year; particularly the new housing loans and car purchase loans increased in annual terms.

month. The annual percentage rate of charge (APRC) on housing loans fell by 0.17 percentage point to 5.69 per cent, while the APRC on general purpose loan decreased by 0.62 percentage points to 6.87 per cent.

HUF Bn per cent 50 10 2757 HUF Br 25 5 0 0 -5 -25 -50 -10 -75 -15 -3438 HUF -100 -20 Jan-13 Jan-15 Nov-14 Transactions - HUF Transactions - FX Total - seasonally adjusted ----Year on year growth rate (RHS)

Chart 16: Net borrowing by households

Source: MNB.