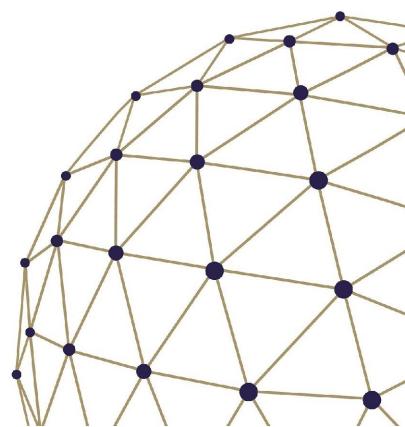


Macroeconomic and financial market developments

March 2017

Background material to the abridged minutes of the Monetary Council meeting of 28 March 2017



Time of publication: 2 p.m. on 12 April 2017

The background material 'Macroeconomic and financial market developments' is based on information available until 22 March 2017.

Article 3 (1) of the MNB Act (Act CXXXIX of 2013 on the Magyar Nemzeti Bank) defines achieving and maintaining price stability as the primary objective of the Magyar Nemzeti Bank. The MNB's supreme decision-making body is the Monetary Council. The Council convenes as required by circumstances, but 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

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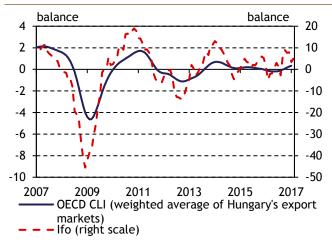
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1. MACROECONOMIC DEVELOPMENTS

1.1. Global macroeconomic environment

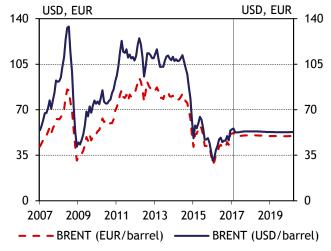
GDP figures for the fourth quarter showed a positive picture overall. The German economy – Hungary's most important trading partner – expanded by almost 2 per cent after seasonal adjustment. Growth in the US continued in the past month; no new information was received on the economic policy expected in the coming years. The medium-term view on the European economic activity has improved in recent months. The risks surrounding the emerging market economies raise doubts about the stability of the global economic activity. In line with the moderate world demand, inflationary pressure from the world market has remained muted in recent months.

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



Source: OECD, Ifo

Chart 2: Brent crude oil world market prices



Source: Bloomberg

GDP figures for the fourth quarter showed a positive picture overall. Seasonal adjusted, the German economy – Hungary's most important trading partner – expanded by almost 2 per cent. Growth in the US continued in the past month; no new information was received on the economic policy expected in the coming years. The risks surrounding the emerging market economics raise doubts about the stability of the global economic activity. The medium-term view on the US and European economic activity has improved in recent months.

The euro area economy registered a quarter-on-quarter growth rate of 0.4 per cent in the last quarter of 2016. In the beginning of this year, based on the monthly production indicators, the growth of the euro area decelerated, while the Purchasing Manager Index, reflecting the short-term economic outlooks, continued to rise. According to market expectations, the growth rate of the euro area may be higher than previously expected, i.e. around 1.6 per cent, throughout 2017. The exit of the United Kingdom from the EU carries significant medium and long-term risks. The growth of the German economy, Hungary's most important export partner, continued in the fourth quarter. Growth was supported by buoyant domestic demand through the expansion of general government consumption and a sustained increase in household consumption, as well as by the rise in gross fixed investment. German industrial production slightly increased in January year on year, while there was a minor decrease in new orders based on the seasonally adjusted data. The Ifo index, capturing the outlooks of the German industry, slightly rose in February, but it is still at a lower level than at the end of last year (Chart 1).

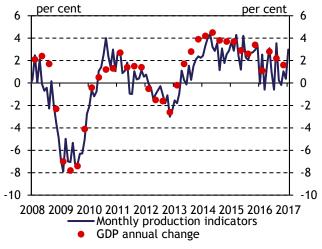
Global inflation substantially increased in the first two months of 2017. Inflation rates in the world's major economies rose, also reflecting base effects, while underlying processes continued to develop moderately. In early March oil prices fell close to USD 50, which was primarily attributable to the record high level of US crude oil

stocks (Chart 2). World market prices of industrial commodities and unprocessed food rose moderately.

1.2. Domestic real economy developments

According to the data release by the HCSO, in the fourth quarter of 2016, Hungary's GDP expanded at a rate of 1.6 per cent year on year. On the whole, Hungarian GDP increased by 2.0 per cent in 2016. In January 2017, whole economy employment rose by 3.8 per cent year on year. The unemployment rate stood at 4.3 per cent.

Chart 3: Monthly production indicators and GDP growth



Note: Weighted average of monthly production indicators (industrial output, construction output and retail sales). The weights are derived from regression explaining GDP growth.

Source: MNB calculation based on HCSO data

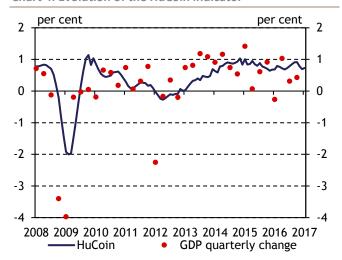
1.2.1. Economic growth

Based on the detailed release by the HCSO, in the fourth quarter of 2016 Hungary's GDP grew at a rate of 1.6 per cent year on year and by 0.4 per cent compared to the previous quarter. On the production side, market services and agriculture were the strongest drivers of growth, while on the expenditure side household consumption continued to serve as the source of growth. Hungarian GDP increased by 2.0 per cent in 2016 as a whole.

In the fourth quarter of 2016 **on the production side** market services and, as a result of its favourable performance outstripping that of previous year, agriculture were the strongest drivers of growth. In line with the modest industrial production in the fourth quarter, the sector's contribution to growth was negative. In addition, construction output also restrained growth, which was attributable to the lower inflow of EU transfers compared to the volume registered in 2015.

On the expenditure side, household consumption substantially increased in the fourth quarter as well, which is also corroborated by the incoming retail sales data. Due to the major fall in public investments, gross fixed capital formation materially reduced the growth in GDP at year-end as well. On the whole, net exports reflected slightly positive contribution to growth in the fourth quarter. In parallel with the subdued industrial production related to the modest output by the machinery sub-sectors, export performance substantially decelerated in the fourth quarter, while the slowdown of annual import dynamics was primarily attributable to the continued decline in investments. The rise in national economy inventories at year-end is partly attributable to the favourable agricultural crops, and in part to the more restrained industrial sales at the end of the year. Based on the available monthly production indicators, GDP may significantly pick up in the first quarter of 2017 (Chart 3). In January 2017 industrial production materially rose, also substantially influenced by the working-day effect. Construction output materially increased, and the expansion

Chart 4: Evolution of the HuCoin indicator



Note: The historic values of the HuCoin indicator may have been changed by revisions to GDP data.

Source: MNB calculation based on HCSO data

in retail sales volume continued in accordance with our expectations.

Based on the HuCoin indicator, which reflects the mediumterm prospects of the domestic economy, the underlying trends of economic activity were stable when examining the average of the past months (Chart 4).

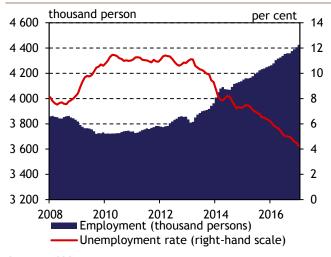
In January 2017, the volume of industrial output was up 6.5 per cent year on year, while on a seasonally adjusted basis it fell by 0.1 per cent compared to the previous month. The dynamics was substantially increased by the working-day effect as well, disregarding which, industrial production expanded by 1.6 per cent year on year. With a high share in output, engineering and metal industry output rose, while the output of the food industry, light industry and chemical industry declined compared to the previous month. On the whole, forward-looking indicators reflect a mixed picture for the short-term outlook of the domestic industry.

Based on preliminary data, in January 2017 the value of goods exports and imports increased by 14.3 per cent and 15.1 per cent, respectively, year on year in euro terms, thus the trade surplus was up EUR 42 million from last January. In December 2016, the eighteen months' improvement in the terms of trade halted; in parallel with the gradually increasing commodity prices the relative price change of mineral fuels also deteriorated the terms of trade.

In January 2017 the volume of construction output was up 18.5 per cent year on year, while output increased by 4.6 per cent compared to the previous month. Production of the two main construction groups developed differently in January: construction of buildings was up 32.8 per cent, while the volume of other construction fell by 3.0 per cent. The volume of concluded new contracts increased by 211.8 per cent, while the month-end volume of construction companies' contract portfolio was up 122.8 per cent year on year.

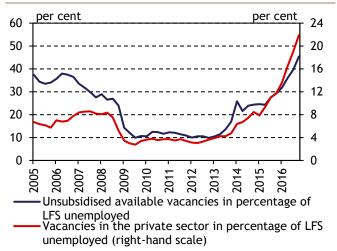
According to the raw data, the volume of retail sales was up 4.7 per cent, in January. Based on the data adjusted for the calendar day effect, it rose by 3.7 per cent year on year, while turnover decreased by 0.2 per cent compared to the previous month. As regards the structure of sales, turnover may have increased in January for a wide range of products. The growth was primarily supported by rising food sales, while the increase in non-food, durable products also considerably contributed to the positive developments in turnover. In addition, fuel sales also continued to increase.

Chart 5: Number of persons employed and the unemployment rate



Source: HCSO

Chart 6: Indicators of labour market tightness



Source: National Employment Service, HCSO

1.2.2. Employment

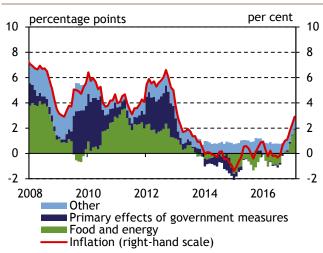
According to Labour Force Survey data, from November 2016 to January 2017 the number of employees in the national economy increased by 3.8 per cent year on year. Labour force participation rate slightly increased in the period under review, while unemployment rate fell to 4.3 per cent (Chart 5). Whole economy employment continued to rise both with and without public employment.

According to the data released by the National Employment Service (NES), as in recent years, in February 2017 the number of newly announced non-subsidised vacancies was also around 15,000-20,000. After a major fall in January, the end-of-month number of vacant non-subsidised jobs has not changed in February. However, based on the forward-looking, private sector vacancies statistics, published by the HCSO, the number of vacancies has not changed substantially in the private sector and it is still close to its historic high. Based on the indicators calculated from various statistics, the tightness of labour market continues to be historically high (Chart 6).

1.3. Inflation and wages

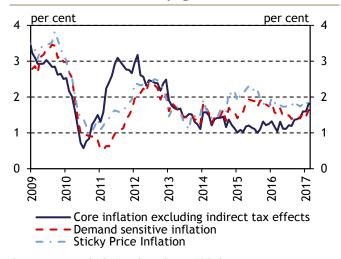
In February 2017 year-on-year inflation was 2.9 per cent, while both core inflation and core inflation excluding indirect taxes stood at 1.8 per cent. Underlying inflation indicators essentially remained unchanged compared to the previous month. In January, gross average wage in the private sector rose by 9.1 per cent year on year, which was mostly attributable to the administrative pay increases affecting the minimum wage and the minimum guaranteed wage.

Chart 7: Decomposition of inflation



Source: MNB calculations based on HCSO data

Chart 8: Measures of underlying inflation indicators



Source: MNB calculations based on HCSO data

1.3.1. Wage setting

In January, private sector gross average wage rose by 9.1 per cent year on year (by 8.0 per cent on seasonally adjusted basis), while the annual index of regular wages was 9.4 per cent (8.6 per cent after seasonal adjustment). Compared to the previous month, the dynamics of both the gross average wage and regular wages substantially accelerated, which was mostly attributable to the administrative pay increases – affecting the minimum wage and the minimum guaranteed wage – in the beginning of the year. Instead of the usual decrease, in line with the seasonality in January, regular wages significantly rose compared to December. Private sector bonus payments in January fell short of those recorded last year.

1.3.2. Inflation developments

In February 2017 year-on-year inflation was 2.9 per cent, while core inflation and core inflation excluding indirect taxes both stood at 1.8 per cent (Chart 7). Inflation and core inflation rose by 0.6 and 0.2 percentage point, respectively, relative to the previous month. The upward drift in inflation is primarily caused by the temporary increase in the price index of fuels, mostly attributable to base effects.

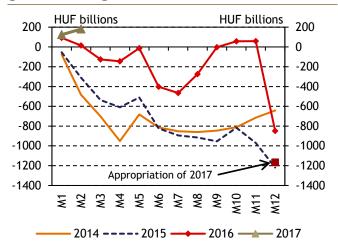
Underlying inflation indicators essentially remained unchanged compared to the previous month, steadily being in the range of 1.5-2.0 per cent (Chart 8). In addition to the low level of imported inflation and inflation expectations, the moderate commodity prices also contributed to this. In January 2017 agricultural producer prices fell by 2.6 per cent in annual terms, while domestic sales prices in the consumer goods sectors increased.

According to our current forecast, the upward drift of inflation will continue in the next month and it will reach 3 per cent; however, after the fading of the base effects the rate will decline below the target in spring and summer months. Starting from the first half of 2018, inflation will be sustainable at the 3 per cent inflation target.

1.4. Fiscal developments

In February 2017, the central government closed with a surplus of HUF 57 billion, thus the surplus generated in the current year rose to HUF 180 billion, which is well above that registered last year. The rise in fiscal revenues, compared to last year's value, was caused by the VAT and personal income tax payments. The surplus was also supported by the realisation of expenditures in a lower amount, of which the net expenditures related to EU transfers were determinants in the decrease.

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



Source: MNB calculations based on HCSO data

In February 2017, the central government closed with a surplus of HUF 57 billion, thus the surplus generated in the current year rose to HUF 180 billion, which is well above that registered last year. (Chart 9). The rise in fiscal revenues, compared to last year's value, was caused by the VAT and personal income tax payments. The surplus was also supported by the realisation of expenditures in a lower amount, of which the net expenditures related to EU transfers were determinants in the decrease.

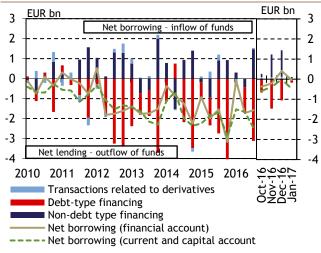
The revenues of the central government in February 2017 were up by roughly HUF 70 billion year on year. The growth was mostly attributable to the rise in tax and contribution income in the amount of HUF 62 billion, while other revenues of the central government exceeded the value registered last year by HUF 9 billion.

The expenditures of the central government in February 2017 were down by HUF 62 billion year on year. The fall in the expenditures was mostly caused by the decline in the net expenditures related to EU transfers and in other expenses of the central government; on the other hand, a rise in several smaller expenditure items was registered compared to last year. During February a surplus of HUF 57 billion was generated in total, thus the cumulated fiscal surplus stood at HUF 180 billion at month-end.

1.5. External balance developments

In January net lending substantially rose from its close to zero value registered in the previous month. The high surplus in the external trade balance registered in January is the result of contrasting effects: the growth in exports in excess of the industrial production growth is partly attributable to the sales of inventories, while the faster increase in imports is primarily the result of the households' domestic demand and the import demand of exports.

Chart 10: Structure of external financing (unadjusted transactions)



Source: MNB

In January net lending substantially rose from its close to zero value registered in the previous month (Chart 10). The high surplus in the external trade balance registered in January is the result of contrasting effects: the growth in exports in excess of the industrial production growth is partly attributable to the sales of inventories, while the faster increase in imports is primarily the result of the households' domestic demand and the import demand of exports. It should be noted that due to the rise in fuel prices, the terms of trade may have reduced the trade surplus already in the beginning of the year.

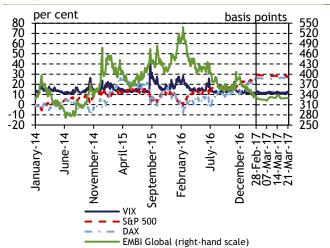
Based on the financing side developments, the inflow of funds registered in December was followed by an outflow of funds in January. Although the inflow of non-debt funds continued in the month under review, the degree thereof was substantially smaller. Foreign direct investments rose by EUR 180 million in January, also affected by one-off factors. Net FDI inflow was reduced by the fact that in January the government acquired EDF Démász electricity provider, while the sales of Magyar Telekom's foreign (Montenegrin) subsidiary increased it. The EUR 150 million fall in the economy's net external debt in January fell short of the major decrease registered in December. The government made a smaller and the business sector made a larger contribution to the decrease in the debt, while the banks' net external debt rose; the latter in part was linked to the adjustment of the year-end balance sheet optimisation. The net external debt of the general government, consolidated with the MNB, fell by EUR 160 million, in which the absorption of EU transfer in excess of EUR 200 million played an important role. The substantial decline in the enterprises' net external debt was achieved under a parallel decrease in foreign bank loans and foreign commercial loan debts.

2. FINANCIAL MARKETS

2.1. International financial markets

Market sentiment has improved since the Council's latest policy decision. The mood was affected mainly by the Fed's and ECB's policy meeting as well as by the Dutch elections. The Fed raised its target for the federal funds rate by 25 basis points. Nevertheless, for markets the tone of the press conference was biased towards easing over the period ahead. The ECB maintained loose monetary conditions and continued its quantitative easing programme through asset purchases. The world market price of crude oil fell significantly over the past month, before stabilising at the end of the period in response to a statement about oil production by OPEC members.

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



Source: Bloomberg

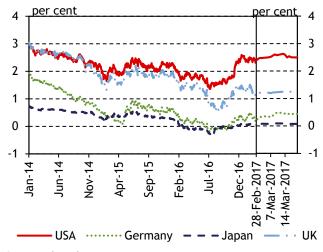
Global investor sentiment somewhat improved on the whole since the previous policy decision. The period was determined by the 25 basis points interest rate increase by Fed, in line with the expectations, the result of the Dutch elections, the unchanged monetary policy stance of ECB and by the uncertainties around the reforms promised by the new US administration. On the whole, risk indices moderately decreased, accompanied by a rise, primarily in European, stock price indices. In addition, the developed market bond yields slightly increased, which took place under decreasing bond market volatility, which also suggested an improvement in investor sentiment under rising inflation expectations.

The performance of developed stock market indices showed a mixed picture in the period. The European stock exchanges were up 0.5-2.5 per cent, while the US and Japanese stock exchanges fell roughly by 0.5-1.0 per cent. The latter ones also rose in the beginning of the period; however, a sudden fall occurred in the world equity markets on the last two days of the month, stemming from the uncertainty surrounding the reforms promised by the Trump administration and it was reflected primarily by a major decline in US bank equities. The VIX index fluctuated between 11 and 13 per cent during the period, thus it was still at a historic low level. In addition, demand for risky assets remained buoyant, which was also reflected by the 4 per cent increase in the MSCI composite index of emerging markets.

The fall in the bond market risk indices also suggested a moderately improving investor sentiment in the period. The MOVE index, measuring the volatility of the developed bond markets, fell by 9 basis points, while the emerging bond market EMBI Global spread also showed a moderate, i.e. 3 basis points, decline (Chart 11).

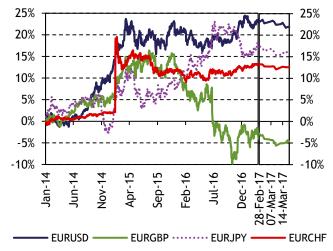
On the other hand, developed long-term bond yields were on the rise: the German and British long-term yields were up 21 and 6 basis points, respectively, while the US and Japanese ones each rose by 1 basis point (Chart 12). The

Chart 12: Yields on developed market long-term bonds



Source: Bloomberg

Chart 13: Developed market FX exchange rates



Source: Reuters

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

larger increase in the euro area long-term yields may have been partly attributable to the acceleration of the area's inflation to 2 per cent, as well as to the ECB's increasing growth and inflation projection, even though it has not changed its monetary policy. The Central and Eastern European emerging market long-term bond yields (with the exception of the Polish ones) rose by 20-40 basis points, which may be linked, in addition to the yield increase in the euro area, to rising inflation expectations.

Brent and WTI oil prices fell by 10-12 per cent during the period. In the middle of the period oil prices fell close to USD 50/barrel in a matter of days, due to a surge in US oil stocks and the rise in the number of shale oil extraction sites. In addition, OPEC announced that it performed a more modest reduction in production in February than in January. However, at the end of the period, the statements by the Saudi minister in charge of oil production — according to which the sole purpose of the higher production was to build stocks, and if necessary the OPEC member states would continue cutting their production — were able to stabilise prices.

In the foreign exchange markets the period was dominated by the strengthening of the euro against developed currencies (Chart 13). The euro strengthened against the dollar by 1.8 per cent in total, in three phases: after the ECB's rate-setting meeting, then after the press conference that followed the Fed's rate-setting meeting, the communication of which was regarded by the market as one that suggests easing, and at the end of the period, as a result of the uncertainties about the reforms promised by the Trump administration. The common currency appreciated roughly by 1 per cent also against the Japanese yen and British pound. Of the emerging market currencies the 5 per cent strengthening of the Mexican peso against the dollar was outstanding, which thus strengthened against the dollar already by 8 per cent this year. With this the Mexican currency returned to its level seen right before the election of Donald Trump, which, however, is still materially weaker than in the beginning of 2016.

The monetary policy decisions of the developed economies remained in focus. Fed increased its main policy rate by 25 basis points with its March interest rate decision. At the same time, it was emphasised at the press conference that the central bank had not changed its December economic forecast and the policy-makers had not changed their interest path projection, thus they still calculated with 3 interest rate hikes this year. The markets interpreted the unchanged forecast as one that suggests easing, which was also reflected by the 1 per cent weakening of the dollar and

the fall in the long-term government securities' yields. The latter was also supported by Janet Yellen's statement at the press conference, according to which no balance sheet deleveraging is planned for the time being. At present, the market calculates with the next interest rate increase in June, with a probability of 54 per cent.

In March neither the ECB, nor the Japanese central bank changed their monetary policy conditions. On the other hand, the Austrian and Italian members of the ECB's Governing Council already made statements about the ways of finishing the asset purchase programme. According to the Austrian member of the Council, the ending of the ECB's asset purchase programme may differ from that of the Fed's asset purchases, suggesting that the key interest rates may rise even before the finishing of the purchases. On the other hand, according to the Italian member of the Council the formerly communicated waiting between the ending of the asset purchase programme and the first interest rate increase may be shorter. The statements also affected the pricing by the market, which now prices the first interest rate hike to December this year.

At the Dutch elections the far-right party performed weaker than anticipated based on the preliminary surveys, which calmed the markets. The far-right Party for Freedom gained only 20 seats in the parliament, compared to the centre-right People's Party for Freedom and Democracy, which won 33 places (21 per cent of all votes). Several of the earlier surveys have forecasted the far-right party to win the election; however, as the winning party precluded coalition with the far-right party, it will remain in opposition. Markets responded to the result positively: the Dutch equity index rose, while the long-term yield fell.

2.2. Developments in domestic money market indicators

The forint exchange rate has not changed materially compared to the previous period, while the Polish zloty slightly appreciated during the month. The government yield curve steepened, as the short-term yields slightly declined, while the longer ones somewhat rose due to international factors. The drop in the non-residents' forint government securities holding may have also pointed to a yield increase. In the calm international risk-taking sentiment, the Hungarian CDS spread closed slightly below the level registered on the day of the previous interest rate decision, i.e. at 113 basis points.

Chart 14: EUR/HUF exchange rate and the implied volatility of exchange rate expectations

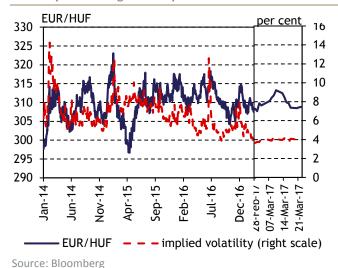
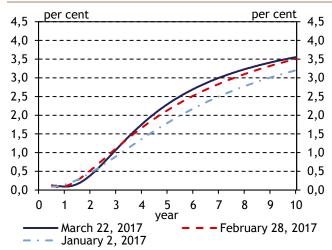


Chart 15: Shifts in the spot government bond yield curve



Source: MNB, Reuters

In the first half of the period the forint weakened, and then returned by the end of the period, thus it essentially remained unchanged, closing at around 309 against the euro (Chart 14). The Polish zloty appreciated by 0.6 per cent, while the Romanian leu depreciated roughly by 0.8 per cent. As a result of the pegging against the euro, the Czech koruna remained unchanged.

The government yield curve became steeper: at the short end of the yield curve yields increased by 2-3 basis points on maturities shorter than 1 year, while there was a fall of 10 basis points on average on the 1-2 year maturities. There was a 15-20 basis points rise in the middle of the yield curve, while the 10-year maturities were characterised by a smaller, i.e. 5 basis points rise (Chart 15).

Demand at the bond auctions of the period was adequate.

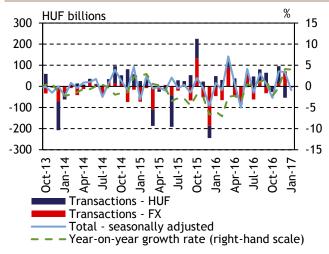
In the first half of the period, demand for the 3-month discount Treasury bill was strong, and most of the long-term securities auctions were characterised by high coverage, thus the announced volume of the 5- and 10-year government securities was occasionally raised. The average auction yield on the 3-month discount Treasury bill fell to record low, i.e. 0.01 per cent in March, while on the long-term maturities material change was registered only in the average auction yield of the 5-year government securities, which rose by 25 basis points.

Non-residents' holdings of government securities have decreased by almost HUF 30 billion during the period. As a result, their portfolio amounts to HUF 3,294 billion, while their share in forint government securities was slightly above 23 per cent (23.3 per cent). Over most of the period, the Hungarian 5-year CDS spread fluctuated below the level of 114 basis points recorded on the date of the interest rate decision, closing with a moderate, 1 basis point, fall at the end of the period to 113 basis points.

3. TRENDS IN LENDING

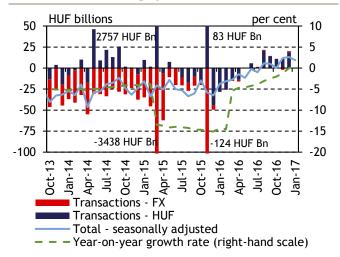
In January, the outstanding loans of credit institutions to the corporate sector fell by HUF 3 billion in total due to transactions, equivalent to a decrease of HUF 18 billion on a seasonally adjusted basis. In January, outstanding loans to households including the self-employed sector, has not changed as a result of disbursements and repayments.

Chart 16: Net borrowing by non-financial corporations



Source: MNB

Chart 17: Net borrowing by households



Source: MNB

In January, the outstanding loans of credit institutions to the corporate sector fell by HUF 3 billion in total due to transactions, equivalent to a decrease of HUF 18 billion on a seasonally adjusted basis (Chart 16). In a breakdown by currency, forint loans rose by HUF 2 billion, while foreign currency loans fell by HUF 5 billion during the month. In January 2017, outstanding borrowing by corporations rose by 4 per cent in annual terms as a result of transactions. Loan agreements concluded in the third phase of the Funding for Growth Scheme boosted the outstanding forint and foreign currency loan portfolio in January by HUF 9 billion and HUF 5 billion, respectively. The Funding for Growth Scheme, which was launched in June 2013, will be closed at the end of March 2017. The changeover to market lending is ensured by the Market-Based Lending Scheme. Within the framework of that, credit institutions undertook a HUF 170 billion increase in loans for this year, as a result of which the 5-10 per cent expansion in SME loans will remain in place.

In January, **interest rates on new corporate forint loans** fell by 88 basis points. The average annualised interest rate on small-value forint loans increased by 0.19 percentage point to 3.71 per cent from the previous month, while the average interest rate on higher-value forint loans, net of money market transactions, dropped by 1.02 percentage point to 1.74 per cent.

In January, **outstanding loans to households** including the self-employed sector, has not changed as a result of disbursements and repayments (Chart 17). In the period under review, households concluded new loan contracts in a total value of HUF 88 billion, thus the average annual growth in new business volume was 53 per cent. Within that the volume of new housing loans rose by 47 per cent.

Compared to the previous month, the **annual percentage rate of charge on forint housing loans** slight increased compared to the previous month, by 6 percentage point to 5.39 per cent. Products with initial interest rate fixation of up to one year recorded a fall in interest rates and those over one year registered an increase.