

Macroeconomic and financial market developments

April 2016

Background material to the abridged minutes of the Monetary Council meeting of 26 April 2016



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The background material 'Macroeconomic and financial market developments' is based on information available until 22 April 2016.

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

https://www.mnb.hu/en/monetary-policy/the-monetary-council/minutes

1. MACROECONOMIC DEVELOPMENTS

1.1. Global macroeconomic environment

Countries in the region grew dynamically in the fourth quarter of 2015, with euro area growth continuing at a rate similar to that of previous quarters. In its latest, April report, the IMF reduced its growth expectations forecast both for the developed and the emerging countries. Growth remains fragile surrounded primarily by downside risks. Large commodity exporting countries may continue to be hit by low commodity prices in the coming quarters. Persisting geopolitical tensions may continue to restrain growth in developed countries through weaker demand. The possible exit of the United Kingdom from the EU may have a negative impact on growth primarily through financial risks; however, the impact of this may vary by individual member states.

The euro area economy registered a quarter-on-quarter growth rate of 0.3 per cent in the fourth quarter of 2015. The tense geopolitical situation may have a negative impact on growth: increasing uncertainty and bilateral economic sanctions may restrain economic activity. Economic growth in Germany, Hungary's most important export partner, remained at the rate seen in the previous quarters. Domestic demand in Germany may have grown further, but external market activity may have been curbed by the slowdown in demand in Asia. In the beginning of this year German industrial production once again showed signs of recovery. Expectations concerning the German economy (Ifo) have declined since last December, but the downturn came to a halt in March (Chart 1).

balance balance 20 4 10 2

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

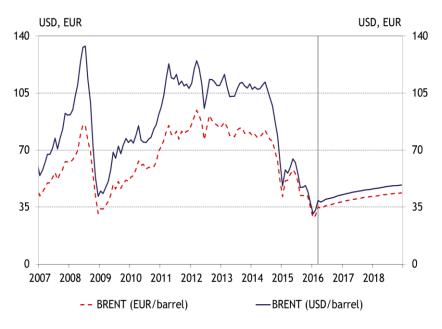
0 -2 -10 -20 -4 -30 -6 -8 -40 -10 -50 2008 2009 2011 2015 2007 2010 2012 2013 2014 2016 —OECD CLI (weighted average of our export markets) -- Ifo (right scale)

Sources: OECD, Ifo.

The region kept up its good performance in the last quarter of 2015 as well. 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 carry both direct and indirect risks to 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. Oil prices in the last two months were moderate, fluctuating in the USD 35-44 band. (Chart 2; for more details see subsection 2.1).

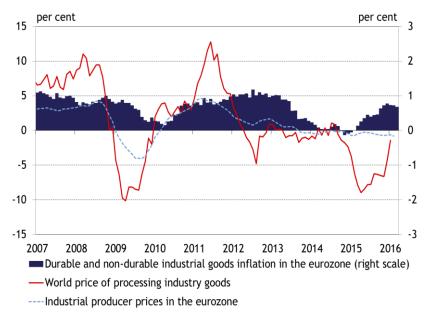
Chart 2: World market price of the Brent crude oil



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

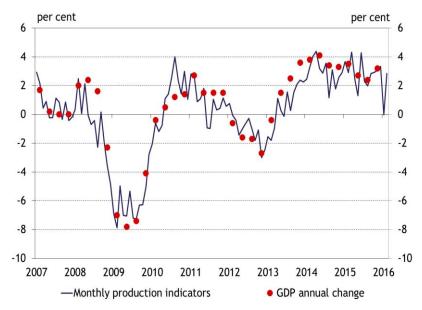
1.2.1. Economic growth

In the fourth quarter of 2015 the growth in economic output continued at a faster rate than in the previous quarters. Hungary's GDP was up 3.2 per cent year on year, with a 1 per cent growth recorded relative to the previous quarter.

The year-on-year growth in GDP was still supported **primarily by the expansion in the performance of services and industrial production**. Industrial production and retail sales were up from the previous quarter, while construction no longer contributed to the economic growth from the second half of the year (Chart 4). **The contribution of agriculture** to economic growth **was negative** in 2015, which is primarily due to the previous year's high base.

On the expenditure side, the recovery of domestic demand continued. Retail data reflect continued growth in household consumption in the fourth quarter, while housing market figures indicate a slowdown in household investment activity relative to the previous quarter. Corporate investment activity declined in the fourth quarter as the spill-over effects of previous large investments faded. Our goods export increased to a lesser degree compared to the previous quarters, in line with the less intensive expansion of services exports, while imports were up in parallel with the dynamic growth in the domestic demand items. Overall, the contribution of net exports to growth remained positive in the fourth quarter, but materially fell short of the 2015 average.

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. Sources: MNB calculations based on HCSO data.

The HuCoin indicator, which marks underlying trends of Hungarian economic activity, indicates more robust processes for the beginning of 2016 than in the second half of last year (Chart 5).

per cent per cent 1,5 1,5 1,0 1,0 0,5 0,5 0,0 0,0 -0,5 -0,5 -1,0 -1,0 -1,5 -1,5 -2,0 -2,0 2008 2009 2010 2011 2012 2013 2014 2015 2016 —HuCoin GDP quarterly change

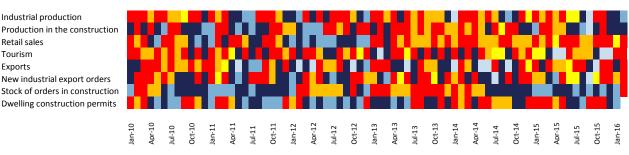
Chart 5: Evolution of HuCoin indicator

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

Sources: HCSO, MNB calculations.

Chart 6: Growth heat map*

Industrial production Production in the construction Retail sales Tourism Exports New industrial export orders Stock of orders in construction



* 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. Sources: MNB calculations based on HCSO data.

In February 2016 industrial output was down 6.3 per cent year on year and 0.8 percent compared to the previous month. The performance of manufacturing subsectors compared to the previous month showed a mixed picture. The decline in the production of the vehicle manufacturing subsector came to a halt. Food industry and light industry output stagnated, while production in the chemical industry decreased compared to the previous month. The forwardlooking indicators reflect a mixed picture for the short-term outlooks of the domestic industry. The EuroCoin indicator, which marks the underlying trends of European economic activity, fell in March, while Hungarian export orders, on the whole, have increased in the past months. However, there may be a risk from the subdued performance of the German industry, which is signalled by the Ifo indicator. The level of the indicator declined since last December, but its fall stopped in March.

Expressed in euro terms, in February 2016 goods exports and goods imports increased by 8.0 and 7.4 per cent, respectively, year on year. Balance of trade surplus was up EUR 112 million from February 2015.

In February 2016, the volume of construction output decreased by 19.2 per cent year on year, while the seasonally and working-day adjusted figure increased by 1.1 per cent compared to the previous month. In February, the output volume of both main construction groups fell compared to the year-on-year high base. The continued February decline is still primarily attributable to the completion of the works funded by EU resources at the end of 2015. The volume of new contracts once again increased due to the rise in the number of contracts for the construction of buildings and other superstructures.

The pick-up in consumption demand continued in the beginning of the year 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 February, according to preliminary data, sales volumes increased by 6.4 per cent year on year, while the increase in turnover was 1.0 per cent compared to the previous month. As regards the structure of sales, turnover may have increased in February in a wide range of products. The growth in retail sales volume was mainly attributable to the increase in fuel sales, accompanied by a major rise in food sales, along with the continued growth in the turnover of non-food consumer goods.

1.2.2. Employment

In the fourth quarter of 2015 the number of employees in the national economy increased further to a small degree. Similarly to the previous quarter, no material change occurred in the number of employees in the general government, albeit the public work programme was further extended. Within the private sector, the dynamic growth in employment – characterising the sector since the beginning of the year – continued. The growth in private sector employment was observed in the manufacturing sector, while the headcount in the market services sector slightly decreased.

According to Labour Force Survey data, in February 2016 the number of employees in the national economy increased by 4.4 per cent year on year. The labour force participation rate rose compared to the previous month. The unemployment rate stood at 5.8 per cent in February (Chart 7).

thousand persons per cent 4 400 13,5 4 300 12 4 200 10,5 4 100 9 4 000 7,5 3 900 3 800 6 3 700 4,5 3 600 3 3 500 1,5 3 400 3 300 2008 2009 2011 2013 2014 2015 2007 2010 2012 2016 Employment (thousand persons) —Unemployment rate (right scale)

Chart 7: Number of persons employed and the unemployment rate

Source: HCSO.

In February 2016, the number of newly announced non-subsidised jobs slightly increased compared to the previous month, accompanied by a moderate rise in the number of vacant non-subsidised jobs at the end of the month. The gradual tightening of the labour market, observed since 2013, has continued according to the tightness indicators calculated from the various statistics (Chart 8).

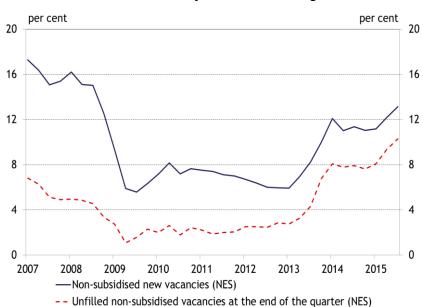


Chart 8: Indicators of labour market tightness

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

1.3. Inflation and wages

1.3.1. Wages

In February 2016 the annual wage dynamics in the private sector accelerated compared to the dynamics observed in January and also in the previous year. According to the seasonally adjusted data, gross average wage in the private sector increased by 4.7 per cent year on year. The bonus payments in February were slightly higher than the rate seen in previous years. Within the private sector the annual dynamics of the gross average wage in manufacturing outstripped that of the market service sector in February.

1.3.2. Inflation developments

In March 2016, inflation was -0.2 per cent, while core inflation was 1.2 per cent and core inflation excluding indirect taxes stood at 1.0 per cent (Chart 9). The decrease in inflation was essentially due to the decrease in the fuel price index attributable to the base effect.

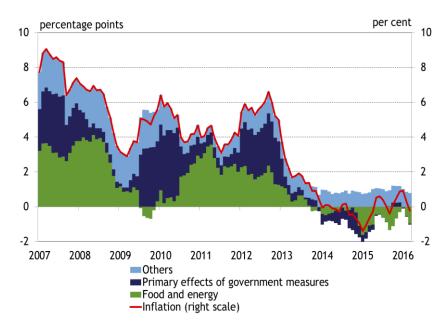


Chart 9: Decomposition of the consumer price index

Source: MNB calculations based on HCSO data.

Underlying inflation indicators continue to point to a subdued inflation environment, which may be attributable to the low level of imported inflation, moderate oil prices and the magnitude of unutilised capacities (Chart 10). In February 2016, agricultural producer prices rose by 2.8 per cent in annual terms, while the domestic sales prices of the consumer goods sectors increased by 0.4 per cent.

per cent per cent Core inflation excluding indirect tax effect - Demand sensitive inflation - - - Sticky Price Inflation

Chart 10: Measures of underlying inflation

Source: MNB calculations based on HCSO data.

The data received for March falls short of the expectation included in the March Inflation Report, which is attributable to the lower-than-expected food price index, reflecting high volatility on monthly basis. 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. Inflation may be close to 0 per cent in the short run.

1.4. Fiscal developments

The deficit of the central subsystem of the general government stood at HUF 141 billion in March 2016, representing a favourable balance relative to the same period of the previous years (Chart 11). The budget balance of March 2016 represents an improvement of HUF 85 billion compared to the same month of 2015, which is due to the lower level of expenditures.

HUF billion **HUF** billion 200 200 0 0 -200 -200 Appropriation of 2016 -400 -400 -600 -600 -800 -800 -1000 -1000 -1200 -1200 -1400 -1400 M2 M3 M5 M6 M7 **8M** Μ9 M10 M11 M12 —2011 modified - - 2012 - · -2013 **—**2014 **—**2015 **→**2016

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

Sources Hungarian State Treasury.

The tax and contribution revenues of the central subsystem in March 2016 outstripped the revenues of March 2015 by HUF 5 billion. The revenues from the levy on financial organisations halved compared to the level of last year due to the fact that the upper rate of the levy was reduced from 0.53 per cent to 0.24 per cent from 2016. On the other hand, the higher contribution revenue has offset this shortfall.

The **expenditures of the central subsystem** in March 2016 fell short of the expenditures in March 2015 by HUF 86 billion. Despite the higher net expenditures of the central spending units and budget chapters, the difference is attributable to the lower value of the net expenditures and social benefits related to the EU projects.

The Hungarian Central Statistical Office published the preliminary data for the 2015 balance and debt of the government sector on 1 April. Based on the data disclosed, the **government sector's ESA deficit amounted to 1.9 per cent of GDP** in 2015, which is a historically low value. The **government sector's debt** – according to the central bank's data – was 75.3 of GDP at the end of 2015. The balance became 0.5 percentage points lower than the deficit target of 2.4 per cent of GDP planned originally in the Budget Act.

1.5. External balance

According to the February data release, the seasonally unadjusted external financing capacity amounted to EUR 633 million, with surpluses of EUR 596 million and EUR 36 million in the current and capital accounts, respectively.

Financing data indicate a borrowing requirement of EUR 150 million in February, that is, according to the financing side processes, there was an inflow of funds. The rise in foreign funds was generated in the context of a minor decrease in net external debt and net FDI inflows. Within net investment capital the equity and share funds increased by almost EUR 200 million in February. In parallel with this there was no substantial change in reinvested capital and intercompany loans. Compared to the January data, net external debt fell to a smaller degree, by roughly EUR 140 million. The net external debt of corporations and the state decreased, where the latter was primarily attributable to the bond sales by non-residents. The absorption of EU transfers further reduced the net government debt. In February the banks' net external debt increased materially, by almost EUR 800 million, with the larger part thereof being short-term debt. Nevertheless, the fall in external debt seen in the last good half-year can be fully linked to the decline in short-term debt, which may have been attributable to the introduction and tightening of the foreign exchange funding adequacy ratio and the foreign exchange equilibrium ratio on 1 January 2016.

2. FINANCIAL MARKETS

2.1. International financial markets

In the first half of the period since the last interest rate decision the global money and capital markets were influenced by mostly negative market sentiments, followed by an improvement in risk appetite as a result of the rise in oil prices and the publication of the favourable Chinese macro figures. Even the failure of the negotiations to restrict oil extraction and the following fall in oil prices later did not turn sentiments into negative (Chart 12). During the month the focus was – in addition to the oil market situation – mainly on the expectations related to the monetary policy of developed central banks: the markets were concerned with the discrepancy between the market pricing and the Fed policymakers' forecast of to the expected Fed interest rate path; and the potential responses of the ECB to the weakening in the anchoring of the long-term euro area inflation expectations. In the emerging region the escalation of the Brazilian domestic political crisis, the corruption scandals, the economy in recession and the social unrest increased geopolitical risks.

The adjustment of the negative performance of the stock market indices seen in the beginning of the year continued in the past weeks, accompanied by an improvement in the global risk indices. The US stock market indices were on the rise throughout the month: the S&P 500 index was up more than 2.5 per cent. Following their decline in the beginning of April, the European and Asian indices started to increase dynamically. On the whole, the German DAX index was up roughly 4 per cent, while the Japanese NIKKEI, even despite its substantial correction at the end of the period, was down half per cent compared to its value a month ago. In addition to the majority of the developed stock market indices, the MSCI composite stock price index also shows a favourable trend in the emerging equity markets, having increased by roughly 1.5 per cent during the month. In the CEE region the stock market indices also turned into positive; the largest increase was achieved by BUX (over 5.5 per cent) thereby pushing the domestic stock market index to its 5-year high.

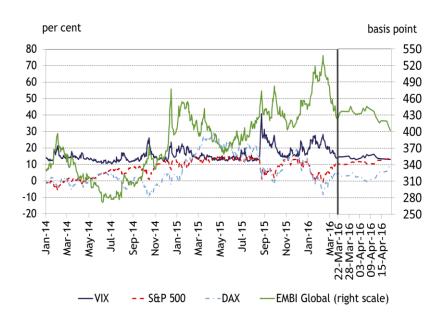
The development of the risk indices also signalled positive trends; the emerging bond market EMBI Global premium fell by 20 basis points and the VIX index by almost 1 percentage point during the period.

The improving investment sentiment was also reflected in falling yields in the beginning of the period. Later, however, the 10-year euro and dollar yields started to rise at the end of the period, while the adjustment of the long-term yields of the periphery countries is also attributable to the improved risk appetite. In addition, the minor decrease in the 5-year Spanish and Italian CDS premia also suggested that the signs of strains in financial markets disappeared from the prices. The improvement in Italy's risk perception was also attributable to the decision on establishing a 5 billion euro fund to reduce the high ratio of non-performing loans and foster the capital injection of smaller banks.

The oil price was volatile during the last month: the initial fall in oil prices was followed by a more substantial price increase, as the date of the conference of the large oil extraction countries in Doha approached, then — in the absence of an agreement on the restriction of the volume produced — the benchmark oil quotes once again saw a substantial downward shift. The conference of the OPEC and non-OPEC countries were surrounded by strong investors' expectations about a potential agreement with regard to the possible stabilisation of production, hence the failure of the meeting generated a larger negative swing in oil prices. At the end of the period oil market quotes showed a substantial upward shift, as a response to the unfavourable news of the renewed negotiations on the freezing of oil extraction and as a result of the better-than-expected US oil reserve figures, indicating a smaller than originally expected increase in demand. On the whole, since the last interest rate decision, the price of the Brent crude oil — after a fall of almost 7 per cent — closed the period at a level close to USD 46 per barrel, representing a more than 10 per cent increase.

The exchange rate of major currencies was dominated by the depreciation of the US dollar. The depreciation of the dollar was largely attributed to the Fed's communication cooling expectations about an interest rate increase, by calling for cautiousness due to the uncertainties surrounding global growth. At the end of the period the dollar showed some strengthening adjustment – on account of the favourable US inflation and employment data signalled by the Federal Open Market Committee members and the Beige Book –, thus its depreciation against the euro and Swiss franc decreased below 1 per cent. Due to the uncertainties concerning the Brexit the volatility of the British pound became high and the risks pointing to depreciation against the other developed currencies increased.

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



Source: Bloomberg.

Since the last rate-setting meeting several news arrived from the developed central banks, which had an effect on the market. Economists considered the speech of Janet Yellen made two weeks after the March Fed meeting to be markedly cautious, presumably trying to soften the edge of the messages of other FOMC members who spoke in previous weeks. The Chair emphasised that the uncertainties around global growth and the market volatility require the Fed to follow an extremely prudent and cautious conduct in the area of interest rate increases. After the speech the cumulative probabilities of interest rate increase reflected in the market prices decreased, and this trend also continued after the publication of the minutes of the March meeting (after 6 April). As a result of the communication that suggested easing, according to the current data, the market is pricing the maintenance of the present level of interest rates until the December meeting with a probability of 50 per cent, although in mid-March option prices included only a 20 per cent probability of maintaining the interest level until the end of the year.

At its 21 April meeting, the Governing Council of the ECB, in line with the market expectations, did not change the central bank's interest policy; in addition, the policymakers decided to continue the asset purchase programme at the same rate (EUR 80 billion per month). On the other hand, the markets anticipate the announcement of further measures during this year, as the long-term inflation expectations in the euro area are still fluctuating at historic low level. The

inflation and core inflation data published in the past period show only a minor improvement in the underlying processes. The recent appreciation of the euro does not help the inflation path to rise, hence the economists expect the ECB to modify the quantitative easing programme later on (June, September), or even to cut the deposit rate further.

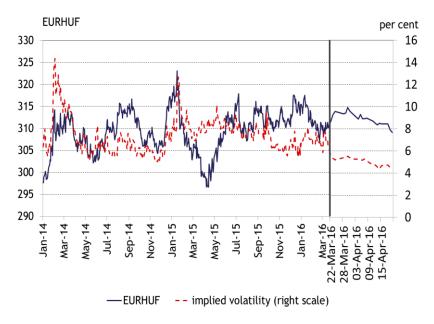
2.2. Developments in domestic money market indicators

In the past period Hungarian asset prices were driven by domestic factors, in addition to the international factors. The MNB's interest rate decision and communication, as well as the lower-than-expected inflation figure also had an effect on the processes.

During the last one month the EUR/HUF rate moved within the band of 309-315; on the other hand, taking the entire period, it did not change much (Chart 13). In the days after the March interest rate decision the forint exchange rate depreciated from 311 to 315, followed by a gradual appreciation. Although the inflation outcome, which fell short of the expectations, caused some volatility, on the whole it did not affect the trend of appreciation. By the end of the period the exchange rate appreciated back to the level of 310-311. The implied volatility applicable to the forint exchange rate fell to a historic low during the period.

As regards the currencies of the region, they moved opposite to the forint. In the beginning of the period the Polish zloty appreciated, to be followed by a gradual depreciation. By the end of the period the zloty depreciated by 1.5 per cent against the euro on the whole, while the Romanian leu bounced back close to its start-of-month value, thus, similarly to the forint, its whole-month value has hardly changed.

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



Source: Bloomberg.

In the period since the previous interest rate decision, the short end of the yield curve moved 20 to 25 basis points down, with the middle and long sections moving 10 to 25 basis points down (Chart 14).

The benchmark yield in the market of short-term government securities fell close to 0.9-0.95 per cent during the period, which may as well be attributed to the interest rate cut by the MNB. The 5-year and 10-year government securities yields fell close to 2 per cent and 2.9 per cent, respectively. As regards the regional trends, the Polish and Romanian long-term yields were characterised by a rise of 5-10 basis points, which suggests that the decline in the domestic yield environment may have been attributed to country-specific elements as well.

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 1 2 5 9 10 year —April 20, 2016 -- March 21, 2016 - - January 5, 2016

Chart 14: Shifts in the spot government bond yield curve

Sources: MNB, Reuters.

The government bond auctions of the last month were characterised by strong demand. The Government Debt Management Agency increased the offered volume at all auctions of the fixed-rate 3-, 5-, 10- and 15-year bonds, thus during the month the issued volume exceeded the plan by roughly HUF 40 billion. Demand at the discount Treasury bill auctions varied. While in the case of the 3-month discount Treasury bills there was a 3- and 4-fold overbidding and the issued volume had to be raised, at the 12-months auctions the Government Debt Management Agency reduced the issued volume in view of the poor demand.

Non-residents' holding of government securities has not changed substantially since the last interest rate decision; their portfolio fluctuated around HUF 3,600 billion during the period. On the other hand, the non-residents' rate of participation in the government securities auctions was lower, thus their share within the total forint government bond portfolio fell further: after last month's 27.3 per cent at present it stands at 26.6 per cent, which is close to the 5-year low. During the month Hungary – first in continental Europe – issued a yuan denominated bond. The issued volume was CNY 1 billion (HUF 42 billion), sold with a yield of 6.25 per cent.

Hungarian 5-year CDS premium fluctuated in a narrow band throughout the period, on the whole dropping by 9 basis points to 147 basis points.

3. TRENDS IN LENDING

In February, outstanding loans to enterprises decreased by HUF 34 billion in total (after seasonal adjustment by HUF 20 billion) (Chart 15). Forint loans increased by HUF 31 billion, while foreign currency loans fell by HUF 65 billion. The annual decrease in outstanding loans stood at 7 per cent in February, which is up 0.3 per cent compared to January.

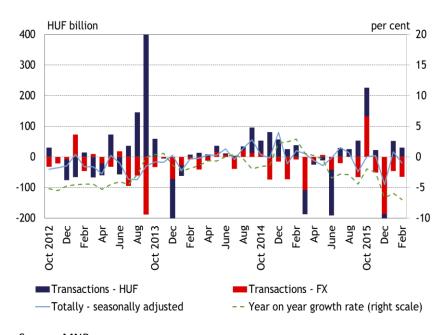
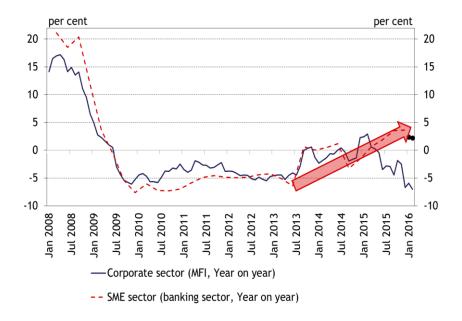


Chart 15: Net borrowing by non-financial corporations

Source: MNB.

By contrast, our estimate based on preliminary data suggested an annual increase of 2.2 per cent in the loan portfolio of the SME segment in February (Chart 16). As a result of the disbursement of the loans, the Funding for Growth Scheme contributed to lending by HUF 3 billion increase, followed by an additional HUF 3 billion through Phase 3 of the programme, which is similar in size to disbursements made last February.

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



Sources: MNB.

In February, in the case of newly granted corporate loans, the average annualised interest rate on small-value forint loans fell by 0.15 percentage points to 4.70 per cent from December, while the average interest rate on higher-value forint loans decreased by 0.24 percentage points to 1.51 per cent.

Outstanding loans of the household segment vis-à-vis the credit institutions sector declined by HUF 26 billion. Forint loans outstanding decreased by HUF 28 billion, while total foreign currency loans increased by HUF 2 billion – the latter was attributable to the conversion of the HUF 4 billion car loan portfolio from forint back to foreign currency (Chart 17). In February the annual decrease in loans outstanding amounted to 14.5 per cent; without the impact of the settlement and the conversion into forint this amounts to a decrease of 4.2 per cent.

HUF billion per cent 10 50 2757 HUF Bn 83 HUF Bn 25 5 0 0 -25 -50 -10 -75 -15 -3438 HUF Bn -124 HUF Bn -100 -20 2015 2012 2013 Febr Apr oct. oct. Sct Oct Transactions - FX Transactions - HUF —Totally - seasonally adjusted -- Year on year growth rate (right scale)

Chart 17: Net borrowing by households

Source: MNB.

In February, interest rates on new household loans slightly increased due to the composition effect. The annual percentage rate of charge on forint housing loans increased by 0.15 percentage point to 5.79 per cent, while that on general purpose forint loans rose by 0.45 percentage points to 7.3 per cent. The increase in the annual percentage rates of charge was in line with the monthly fluctuation observed in the previous period as well.