MACROECONOMIC AND

FINANCIAL MARKET DEVELOPMENTS

BACKGROUND MATERIAL

TO THE ABRIDGED MINUTES

OF THE MONETARY COUNCIL MEETING

OF 25 FEBRUARY 2020

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The background material 'Macroeconomic and financial market developments' is based on information available until 20 February 2020.

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 at least 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 the 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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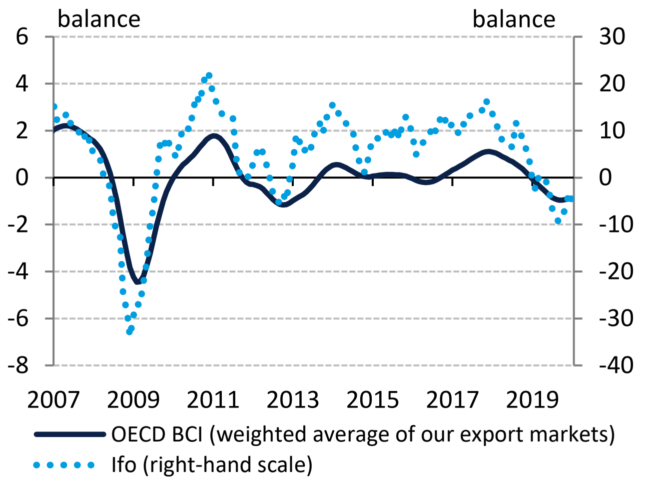
1. Macroeconomic developments

1.1 Global macroeconomic environment

In the fourth quarter of 2019, the US economy rose by 2.1 percent in line with the expectations. Growth rate in the euro area in the fourth quarter of 2019 fell to a seven-year low of 1.0 percent as a result of the slowdown in Italian and French economic growth and the stagnation in Germany. The outlook for growth in the euro area remained persistently subdued. Expansion of the region continued to outperform that of the euro area. The further spread of the coronavirus carries significant negative risks to global economic developments.

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



Source: OECD, Ifo

In line with the expectations, the US economy grew by 2.1 percent year-on-year in the fourth quarter of 2019. Net exports made a positive contribution to economic growth again, in addition to household and government consumption. Inventories made a negative contribution to economic performance. As a result of the uncertain economic environment, machine-type investments continued to dampen economic growth. Growth of the US economy may gradually decelerate in the coming period paralleled by a run-out of growth supporting measures (tax cuts and infrastructural investment programme). The prospects will also be heavily affected by this year's presidential elections.

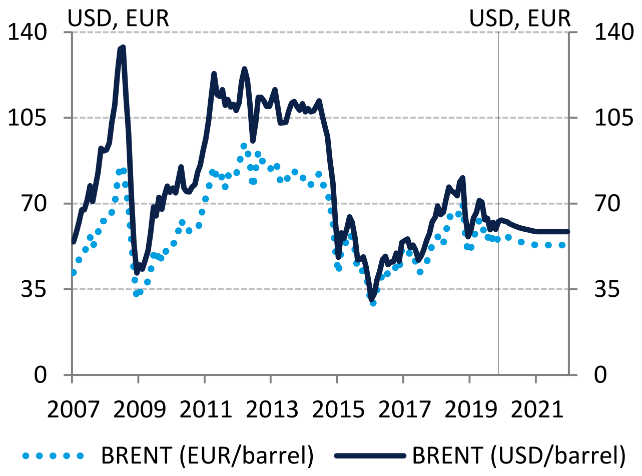
Growth in the major economies of the euro area moderated significantly in the fourth quarter of 2019. Economic growth in the euro area was 1.0 percent year-on-year and **0.1 percent quarter-on-quarter in the last quarter of 2019**. **The growth rates of Italy and France declined on a quarterly basis. The expansion of Germany,** Hungary's most important trading partner, **was 0.3 percent on an annual basis while stagnating on a quarterly basis** according to the flash estimation of the Federal Statistical Office of Germany. The extremely restrained German growth was caused mainly by to the poor performance of industrial output and exports and the subdued growth in domestic consumption. Although new orders in the German industry also continued to decline in December in annual terms, the forward-looking Manufacturing Purchasing Managers' Indices (PMI) showed further moderate improvement. **The Ifo index, which captures German economic outlook, and the Manufacturing PMI has been adjusting for several months** (Chart 1). **The fact that the decoupling between production dynamics of the two countries still exists brings an additional perspective to the short-term impact of the German industrial trends on Hungary's prospects despite the moderation of Hungarian industrial dynamics experienced in the past months.**

As in the previous quarters, the Central and Eastern European region proved to be the growth centre of the

European Union in the fourth quarter of 2019. According to seasonally adjusted data, Romania, Poland, Slovakia and the Czech Republic recorded GDP growth rates of 4.2 percent, 3.5 percent, 1.9 percent and 1.7 percent, respectively. Growth in the region exceeded again that of the euro area by more than 2 percentage points. As a result, the convergence in the real economy continued. Examining the region as a whole, domestic demand remains the key driver of growth.

Growth prospects remain restrained based on economic indicators in the euro area. Risks jeopardising economic growth include the presence of trade tensions, deteriorating industrial output observed in the past period, challenges in the automotive industry, the vulnerability of Italy arising from high government debt, the indirect effects of the deceleration of the Chinese economy and the uncertainty resulting from the fragile financial environment of the emerging markets. **The spread of the Chinese coronavirus carries additional risks,** leading to the deterioration of business confidence, the drastic slowdown of the Chinese and the world economy, and disruptions in global supply chains. In addition, **the uncertainty surrounding the trade agreement following the exit of the United Kingdom from the EU** continues to represent substantial risk, therefore a 'hard Brexit' should be considered as a realistic scenario.

Chart 2: World market prices of Brent crude oil



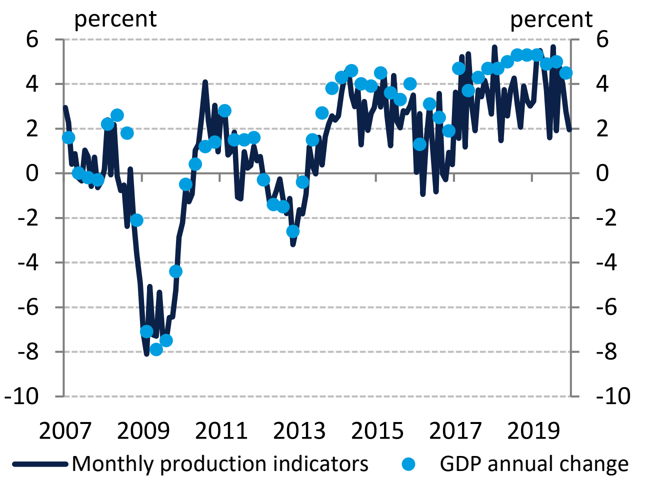
Source: Bloomberg

Based on preliminary data, inflation trends measured in euro area, rose in January in line with economists' expectations, which was also attributable to the base effect of the fuel prices. **Accordingly, inflation could be 1.4 percent and core inflation could decline to 1.1 percent. In the past period, the world market price of crude oil has fallen significantly. As a result, Brent is currently trading at around USD 56/barrel down from the mid-January level of USD 65 level** (Chart 2). **The 15 percent drop in the world market price of crude oil was caused by the outbreak of the Chinese coronavirus epidemic,** as the market expects global oil demand to decline and growth to slow down. In their latest forecast, OPEC expects global demand for oil to possibly be 230,000 barrels less a day as opposed to their previous assumption as a result of the epidemic. However, the market was somewhat optimistic that the organization would be willing to take measures to curb further declines in oil prices, but that would only be decided at the March meeting in Vienna. The world market price of both industrial commodities and unprocessed food increased in January.

1.2 Domestic real economy developments

In the fourth quarter, both industrial and construction output were more moderate relative to earlier quarters, while retail sales showed strong growth exceeding expectations. The seasonally adjusted unemployment rate remained at 3.4 percent. Based on the number of vacancies, corporate labour demand continued to decline in a wide range of the sectors in the third quarter of 2019.

Chart 3: Monthly production indicators and GDP growth

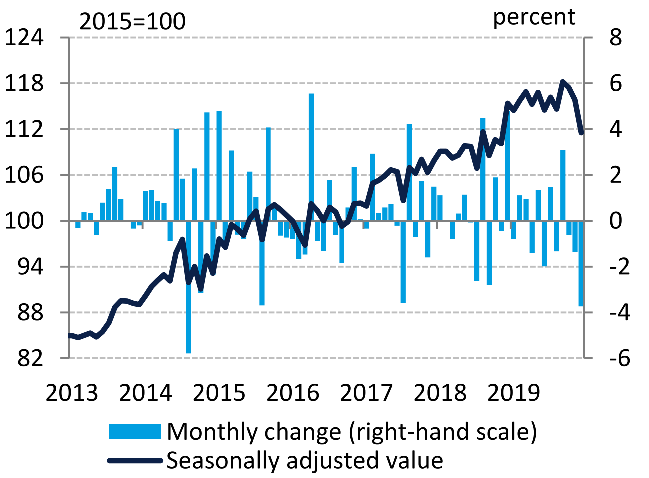


Note: Weighted average of monthly production indicators (industrial output, construction output and retail sales). The weights are derived from regression explaining GDP growth.
Source: MNB calculation based on HCSO data

1.2.1 Economic growth

According to HCSO's data release, in the fourth quarter of 2019, Hungary's gross domestic product rose by 4.5 percent year-on-year. Based on the seasonally and working-day adjusted data, Hungary's GDP rose by **1.0 percent quarter-on-quarter. A wide range of the sectors contributed to the growth.** Hungary ranked first in the European Union member states' growth ranking in annual terms. **On the output side, market services supported GDP growth the most, while industry and construction supported it to a lesser extent** (Chart 3 and 4). Despite a poor German industrial output, the Hungarian automotive industry substantially rose in the fourth quarter of the year. As a result, industry made a positive contribution to growth too. **On the expenditure side, domestic demand factors** (consumption and investment) continued to expand significantly and support economic growth, **while exports could make an almost neutral contribution to GDP growth.**

Chart 4: Development in industrial production



Source: MNB calculation based on HCSO data

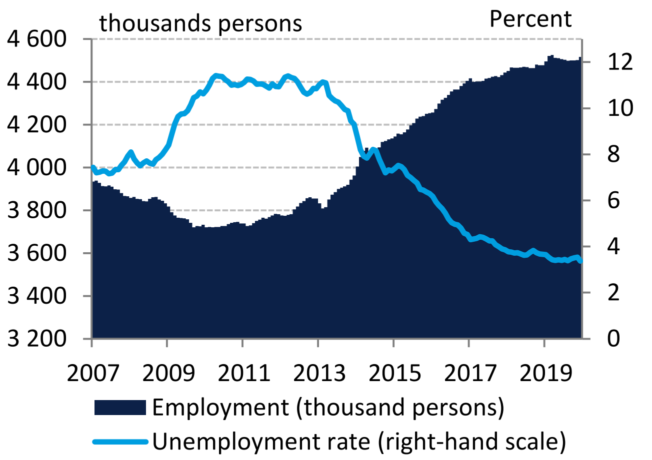
In December 2019, **industrial output decreased by 1.2 percent** year-on-year, while output fell by 3.9 percent compared to the previous month (Chart 4). **The seasonally and working-day adjusted index decreased by 3.3 percent,** reflecting one more working day than last year. Representing a significant share, automotive industry output decreased by 10.4 percent in annual terms due to longer factory shutdowns and maintenance longer than usual in the winter break. As regards other sectors, the **manufacture of electric machinery** (28.1 percent) showed significant growth. In addition, **growth in the domestic manufacture of computer, electronics and optical products, pharmaceutical manufacturing and food production** also exceeded the industrial average. In December, the performance of the **metal industry** (-10.2 percent) and the output of the **textile industry** (-7.3 percent) **declined** year-on-year. **For the year as a whole industrial output increased by 5.4 percent compared to 2018.**

Based on preliminary data, **expressed in euro terms, exports decreased by 0.8 percent and imports increased by 2.6 percent** in December 2019 in annual terms. As a result, trade surplus decreased by EUR 247 million. In November 2019, terms of trade continued to improve year-on-year, influenced positively by mineral fuels, machinery and transportation equipment, and chemicals.

In December 2019, construction output rose by 2.7 percent year-on-year and it decreased by 3.7 percent relative to the previous month. The output of the two main construction groups showed opposite developments: construction of buildings decreased by 11.3 percent, while other construction increased by 22.2 percent. In other construction projects road and railway constructions generated the growth. **The volume of new contracts increased by 10 percent year-on-year,** the volume of new contracts concluded in construction of buildings rose by 1.4 percent, while in other construction works the volume increased by 21 percent. The month-end volume of the construction companies' contract portfolio fell short of the value registered a year ago by 10.5 percent. **In 2019, construction output grew by 21.7 percent compared to 2018.**

In December, **retail sales volume** (including sales of vehicles and components) **was up by 8.2 percent year-on-year based on calendar adjusted data**. The rise in the total retail sales volume was primarily attributable to the continued growth in the turnover of non-food products (technical and industrial goods, mail order shops). **The expansion of sales of vehicles and components also continued to accelerate as the increase was nearly 30 percent.** Sales of business groups selling non-durable goods continued to increase and contributed significantly to the growth in retail sales.

Chart 5: Number of persons employed and the unemployment rate



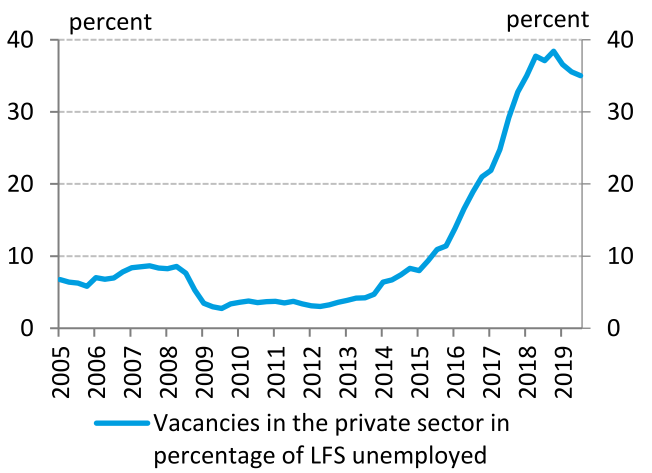
Source: HCSO

1.2.2 Employment

According to the (seasonally adjusted) data of the Labour Force Survey, in the period of October-December 2019, both the labour force participation rate and the number of people in employment rose. The number of people in public employment and the number of people employed abroad remained essentially unchanged. The former accounted for 108 thousand and the latter for 120 thousand in the last quarter. **The seasonally adjusted unemployment rate remained at 3.4 percent.** (Chart 5).

In the third quarter of 2019, based on the number of vacancies, **corporate labour demand continued to decline in a wide range of the sectors. The labour market tightness indicator,** calculated from the ratio of job vacancies and unemployed persons, **slackened** – similarly to the previous quarter – **but remained at a high level** (Chart 6).

Chart 6: Development of labour market tightness indicator

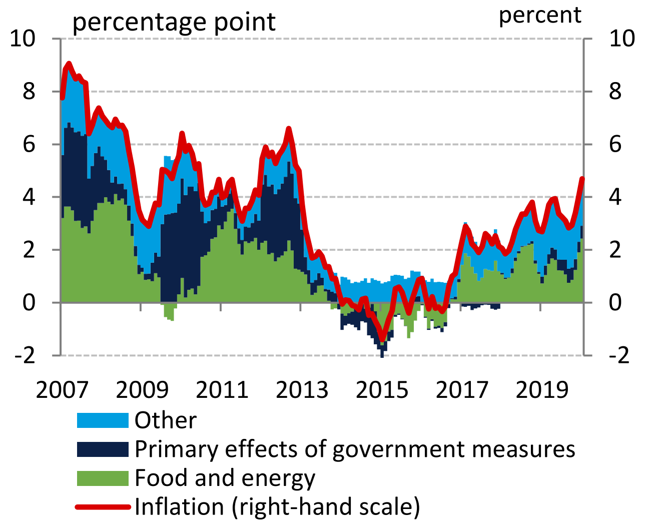


Note: Quarterly data.
Source: National Employment Service, HCSO

1.3 Inflation and wages

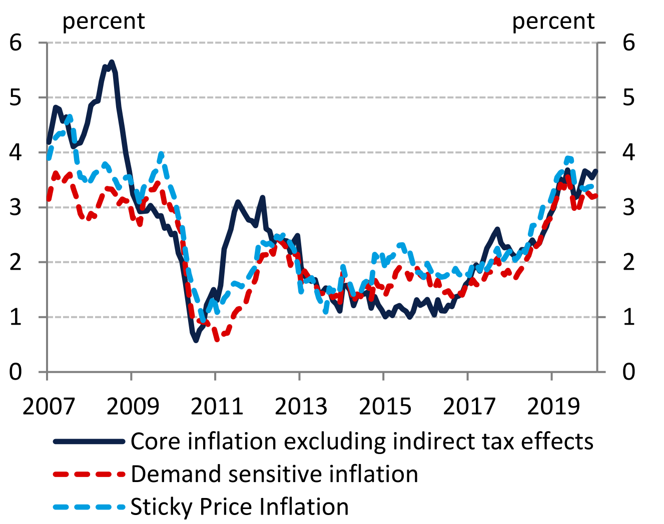
In January 2020, inflation calculated on a year-on-year basis was 4.7 percent. Core inflation stood at 4.0 percent while core inflation excluding indirect taxes was 3.7 percent. Underlying inflation indicators that capture persistent trends remained unchanged compared to the previous month. In November 2019, gross average wages in the private sector rose by 12.1 percent year-on-year. Wage dynamics, still exceeding the 8 percent rise in the minimum wage and the guaranteed wage minimum, may primarily be attributable to tight labour market conditions determining the underlying wage setting trend.

Chart 7: Decomposition of inflation



Source: MNB calculation based on HCSO data

Chart 8: Measures of underlying inflation indicators



Source: MNB calculation based on HCSO data

1.3.1 Wage setting

In November 2019, gross average wages in the private sector rose by 12.1 percent year-on-year. Unlike the usual seasonality, regular average earnings decreased on a monthly basis. Bonuses paid by companies in November were higher than in recent years. Year-end bonuses have not been this high since before the crises. Regular wage increases and bonus dynamics in the second half of the year may have been partly shaped by the 2-percentage-point reduction in the social contribution tax rate by as of 1 July. Within the private sector, similarly to the previous months, wage dynamics in manufacturing substantially exceeded wage growth in the market services sector. Wage dynamics, exceeding the 8 percent rise in the minimum wage and the guaranteed wage minimum, may still primarily be attributable to tight labour market conditions determining the underlying wage setting trend.

1.3.2 Inflation developments

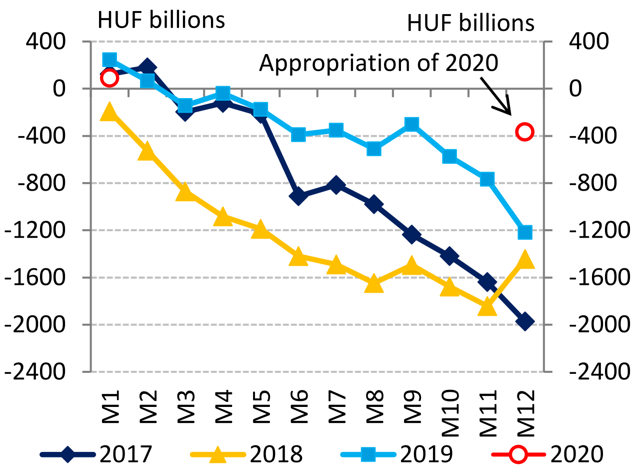
In January 2020, inflation calculated on a year-on-year basis was 4.7 percent. Core inflation stood at 4.0 percent while core inflation excluding indirect taxes was 3.7 percent (Chart 7 and Chart 8). Compared to the previous month, inflation increased by 0.7 percentage point and core inflation by 0.1 percentage point. The rise in inflation is primarily attributable to fuel and food price increases. Inflation of market services within the sub-items of tax-adjusted core inflation had the same value as in the previous month, while the price index for industrial products continued to be moderate. Meanwhile, prices of processed foods that are sensitive to world market price changes, particularly for meat products and milk, continued to rise.

Underlying inflation indicators capturing persistent trends (inflation of demand sensitive and sticky price products and services) remained unchanged compared to the previous month (Chart 8). In December 2019, agricultural producer prices increased by 4.6 percent in annual terms, while domestic sales prices in sectors of consumer goods increased by 6.8 percent.

1.4 Fiscal developments

The central sub-sector of the state budget closed with a surplus of HUF 90 billion in January 2020, which means a lower balance than the value in January 2019. The decrease was mainly due to a moderation in EU revenues recorded in the budget and an increase in EU expenditures, offset by rising tax revenues and a decline in the expenditure of government institutions.

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



Source: Budget Act of 2020, Hungarian State Treasury

The central sub-sector of the state budget closed with a surplus of HUF 90 billion in January 2020, which means a lower balance than the value in January 2019 (Chart 9). The decrease was mainly due to a moderation in EU revenues recorded in the budget and an increase in EU expenditures, offset by rising tax revenues and a decline in the expenditure of government institutions.

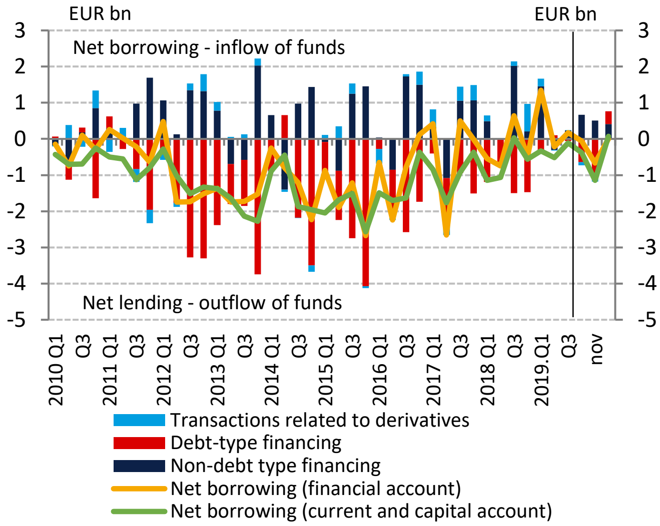
The tax and contribution revenues of the budget increased by 8 percent, a total of HUF 121 billion, in January 2020 compared to the same month of the previous year. By contrast, EU subsidy revenues were HUF 223 billion lower than in January 2019.

Expenditures of the central sub-sector in January 2020 was HUF 51 billion higher than in January 2019. A smaller part of the difference occurred in primary expenditures, while the greater part was related to net interest expenditures. Within primary expenditures, the increase in EU subsidy expenditures was offset by a decrease in the net expenditure of budgetary institutions.

1.5 External balance developments

In December, the economy's external financing requirement was EUR 72 million, while the current account deficit was EUR 348 million. According to preliminary data received, the current account balance to GDP ratio was -0.3 percent in 2019, which is more favourable than projected in the December Inflation Report. With regard to financing, foreign direct investment inflows continued in December, while the economy's debt liabilities increased slightly.

Chart 10: Structure of net lending (unadjusted transactions)



Note: Positive values indicate net borrowing (inflow of funds), while negative values indicate net lending (outflow of funds).
Source: MNB

In December, the economy's external financing requirement was EUR 72 million, while the current account deficit was EUR 348 million. The moderation compared to the significant current account surplus in the previous month is primarily attributable to a decline in the goods surplus, but the decline in the use of EU transfers also contributed. Based on preliminary monthly data, the current account balance showed a deficit of 0.3 percent of GDP in 2019, exceeding the improvement expected in the December Inflation Report compared to 2018.

Based on financial account data, direct investments rose by some EUR 600 million in December, while the economy's debt liabilities increased slightly by EUR 350 million (Chart 10)**.** According to the financial account, net borrowing amounted to roughly EUR 750 million. The inflow of funds was primarily related to the increase in direct investment, mainly due to reinvested earnings. Net external debt increased slightly in December, primarily due to a decline in banks' gross external assets, while external liabilities of the state continued to decrease in line with non-residents' declining government securities.

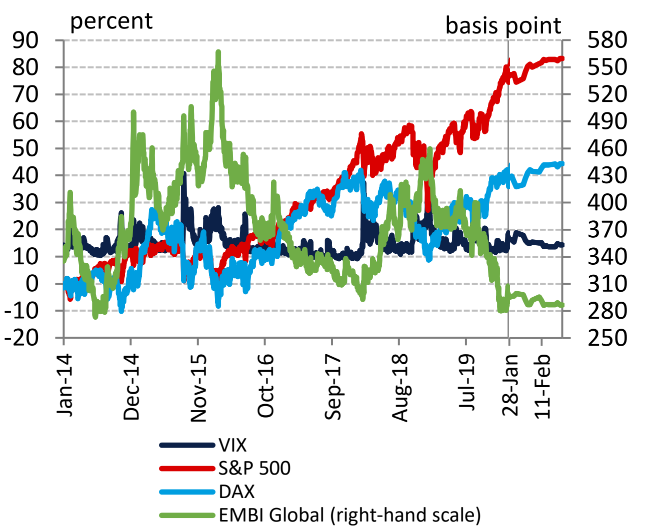
2. Financial markets

2.1. International financial markets

Since the last interest rate decision, international market sentiment initially deteriorated and then improved. Over the past month, market participants have focused on coronavirus concerns, weaker macro data from advanced economies and fears about global growth. Sentiment deteriorating until the end of January has significantly improved in February, thus advanced equity markets have risen, while emerging stock markets have closed near their opening levels. Although yields in developed bond markets typically declined along with worsening growth prospects, emerging market spreads declined. The dollar strengthened against both advanced and emerging currencies. First, oil prices declined significantly due to the expected decline in raw material demand and then corrected in an improving market sentiment.

Overall, global financial market sentiment has deteriorated since the last interest rate decision. Over the past month, market participants have focused on coronavirus concerns, weaker macro data from advanced economies and fears about global growth. While risk appetite worsened significantly by the end of January, a correction followed, and advanced stock indices rose in the past month, while risk indices for both global and emerging markets declined. China is the largest oil importer in the world, so its economic slowdown reduces global demand for oil. The impact of the virus on tourism, aviation and maritime transport will further dampen global demand for raw materials. With respect to these effects, oil prices decreased significantly and then adjusted in the second half of the period in line with supply factors and an improving market sentiment.

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

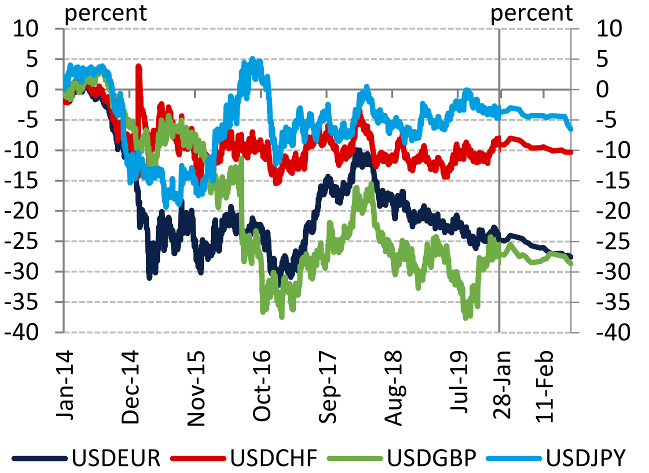


Source: Bloomberg

The VIX index, the key measure of equity market volatility, decreased by nearly 2 percentage points to 14.4 percent, while the emerging bond market EMBI Global spread fell by 8 basis points to 286 basis points (Chart 11). **In the past month, developed stock exchange indices rose by 4-6 percent, thus still standing close to their historic high, while the MSCI composite index, which measures emerging market performance, stagnated. The dollar strengthened against both emerging and advanced currencies** (Chart 12). The strongest appreciation was 2.3 percent against the euro, while it was 1.5 percent against the pound and the Swiss franc and 1.7 percent against the Japanese yen. Gold price rose during the period and was 2.5 percent higher than a month earlier.

Developed market bond yields have evolved differently since the last interest rate decision (Chart 13). The German and US long-term yields fell by 8-10 basis points, to -0.42 and 1.56 percent, respectively, while the UK long-term yield rose by 4 basis points to 0.6 percent and the Japanese remained unchanged. Among European periphery countries, long-term yields in Italy, Portugal and Spain fell by 6-10 basis points. Yields varied differently in emerging countries:

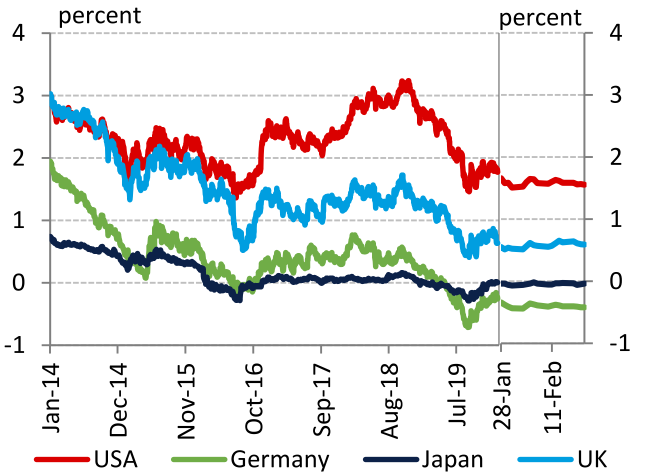
Chart 12: Developed market FX exchange rates



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

Source: Reuters

Chart 13: Yields on developed market long-term bonds



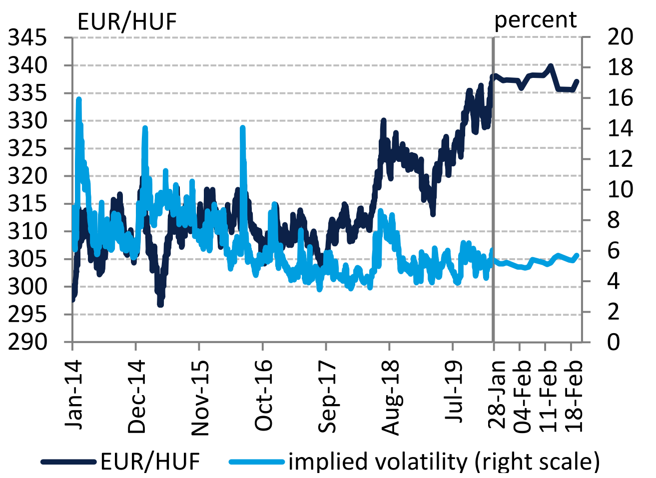
Source: Bloomberg

Turkish yields increased by 130 basis points overall to end-February following a decline in late January, while Russian benchmark yields declined by 25 basis points. Among South American countries, Mexican and Brazilian long-term yields decreased by 20 basis points, while Argentine yields increased by 80 basis points.

2.2. Developments in domestic money market indicators

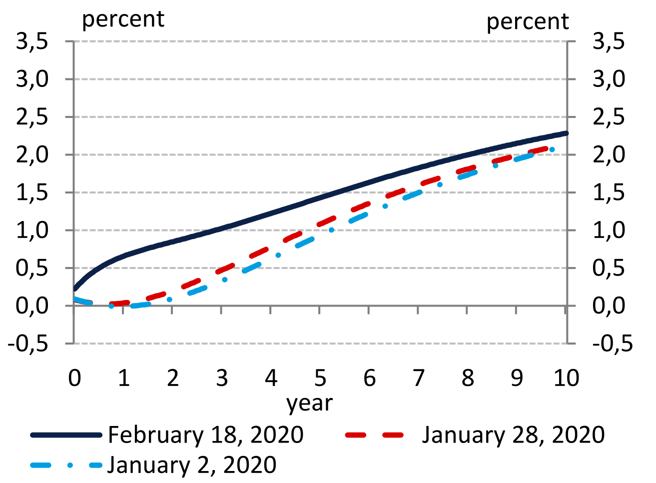
Since the last interest rate decision, the forint exchange rate has shown significant volatility against the euro. Short-term government securities and interbank yields rose significantly, leading the 3-month BUBOR to 0.6 percent. Demand at government securities auctions was typically strong, however, auction yields increased in line with secondary market developments.

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



Source: Bloomberg

Chart 15: Shifts in the spot government yield curve



Source: MNB, Reuters

Since the last interest rate decision, the forint exchange rate has shown significant volatility against the euro (Chart 14), while appreciating against most regional currencies.

The 3-month BUBOR, which is essential for the monetary policy transmission, rose by 38 basis points since the last interest rate decision, and thus it stood at 0.6 percent at the end of the period. The government yield curve shifted upwards (Chart 15). The 1-3 year section of the yield curve registered an increase of 40-65 basis points, while 25-40 basis points on the middle section and 15-20 basis points on the long term section was observed. Therefore, the steepness of the government securities yield curve declined during the period under review, as there was a significant increase in yields, especially on the short section.

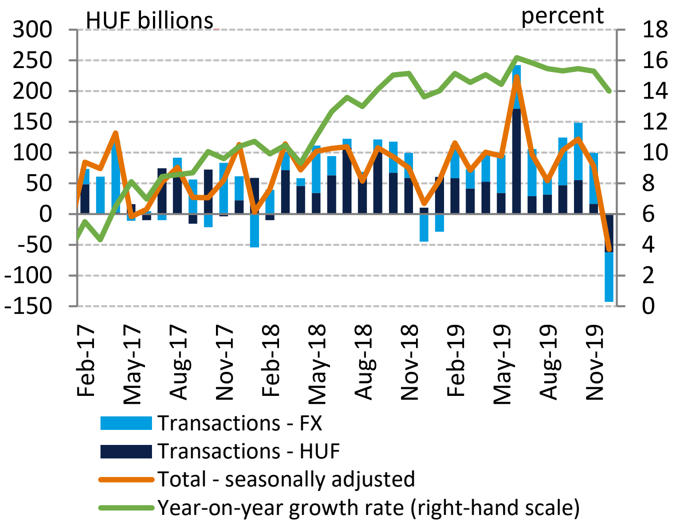
During last month, the discount Treasury bill and government bond auctions were typically characterised by a strong demand, however, average auction yields - in line with secondary market developments - increased at all maturities by the end of the period. Along with the relatively strong demand for 3-month and 12-month Treasury bills, the Government Debt Management Agency, in many cases, accepted less than the amount announced. **The average yield on 3-month auctions rose from 0.05 percent to 0.38 percent**, and the average auction yield on 12-month Treasury bill auctions increased from 0.06 percent to 0.51 percent. Demand was also strong at most of the long-term government securities auctions: at the auction of the 3-, 7-, 10- and 15-year maturities the GDMA accepted higher volumes than previously announced with a coverage of 3-4 times, while at 5-year maturity, in line with low coverage, it accepted less than the amount announced. The average auction yield of 10-year government securities rose by 7 basis points to 2.13 percent and that of 5-year government securities by 26 basis points to 1.46 percent. The Hungarian 5-year CDS spread fell by 1 basis point during the period under review, and currently stands at 46 basis points.

Non-residents' holdings in HUF government securities somewhat increased. Non-residents' forint government securities holdings increased slightly by HUF 25 billion to HUF 4,254 billion. Thus, at the end of the period, the share of foreign stock remained close to 24 percent.

3. Trends in lending

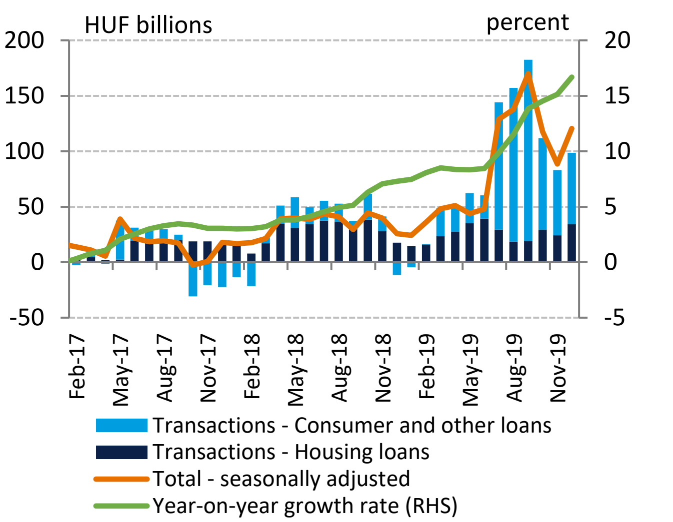
In December 2019, loans of non-financial enterprises from the credit institution sector decreased by about HUF 140 billion as a consequence of transactions, breaking the trend of recent months. Household loans continued to grow significantly in the last month of last year, as annual growth reached almost 17 percent, mainly due to the intensive portfolio expansion in the second half of the year.

Chart 16: Net borrowing by non-financial corporations



Source: MNB

Chart 17: Net borrowing by households

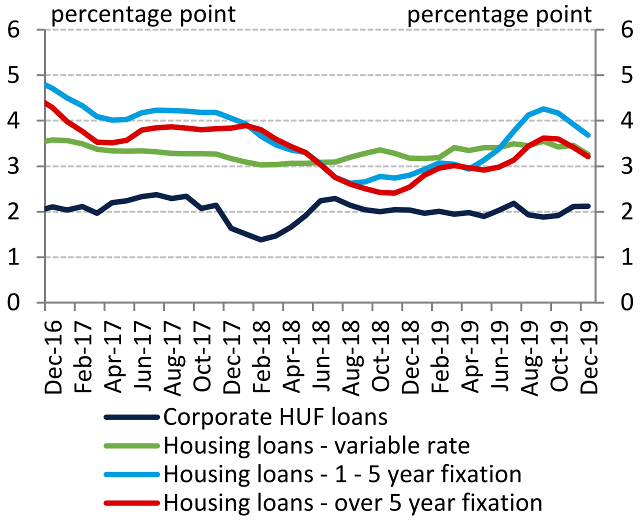


Source: MNB

In December 2019, loans of non-financial enterprises from the credit institution sector decreased by about HUF 140 billion as a consequence of transactions, breaking the trend of recent months (Chart 16). Last month, forint loans and foreign currency loans decreased by HUF 62 billion and HUF 81 billion, respectively, which was concentrated regarding both companies and sectors. Throughout 2019, the corporate credit portfolio expanded by about HUF 1,050 billion based on transactions, resulting in an increase of 14 percent that is lower than the record high dynamic seen in previous months.

Household loans continued to grow significantly in the final month of last year, as annual growth reached almost 17 percent, mainly due to the intensive portfolio expansion in the second half of the year (Chart 17). Last year, the value of new contracts increased by 48 percent. Demand for the prenatal baby support loans, launched in July, was significant in December as well, and although disbursement of the product declined in the fourth quarter, the value of new contracts at the end of the year reached HUF 470 billion. Lending for housing was dynamic, while personal loan disbursements were restrained in the last month of 2019 due to seasonality.

Chart 18: Development of corporate and household credit spreads



Note: In the case of corporate forint loans, the spread over the 3-month BUBOR. In the case of housing loans with variable interest or interest fixed for 1 year at the most, the 3-month BUBOR, while in the case of housing loans fixed for over one year, the APR-based margin above the relevant IRS.
Source: MNB

The smoothed HUF interest rate spread of corporate loans was 2.12 percentage points in December 2019, being practically equal to the value measured in the previous month. (Chart 18). **The average smoothed interest rate spread on variable rate housing loans calculated on the basis of the annual percentage rate (APR) declined during the month** and amounted to 3.26 percentage points. It can be observed that banks follow changes in funding costs only with some delay: longer-term funding costs (relevant IRS's) rose slightly in December compared to the previous month, while the APR level of fixed-rate housing loans declined. **The spread on products with interest rate fixation periods longer than one year and up to 5 years declined by 0.24 percentage points, while that on products with interest rate fixation periods of more than 5 years dropped by 0.20 percentage points compared to November. The average spread on housing loans with interest rate fixation periods longer than one year and up to 5 years reached 3.69 percentage points in December, while the spread on products with interest rate fixation periods of more than 5 years was 3.21 percentage points.**