MACROECONOMIC AND

FINANCIAL MARKET DEVELOPMENTS

BACKGROUND MATERIAL

TO THE ABRIDGED MINUTES

OF THE MONETARY COUNCIL MEETING

OF 24 MARCH 2020

MARCH

2020

Time of publication: 2.00 p.m. on 8 April 2020

The background material 'Macroeconomic and financial market developments' is based on information available until 19 March 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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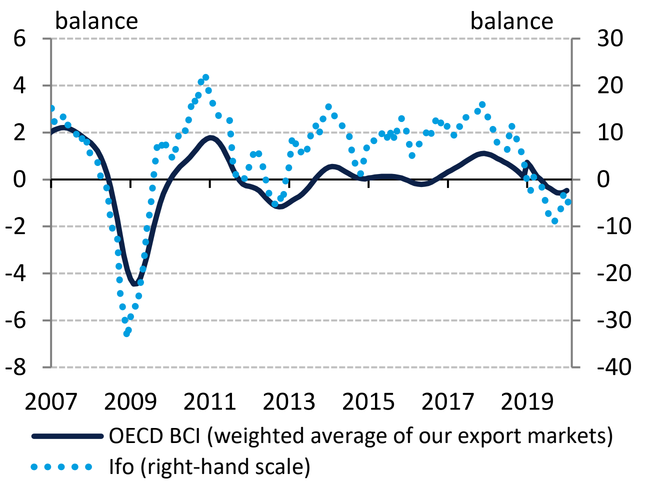
1. Macroeconomic developments

1.1 Global macroeconomic environment

In the fourth quarter of 2019, the US economy grew by 2.1 percent, in line with the expectations. Growth in the euro area in the fourth quarter of 2019 fell to a seven-year low of 1.2 percent as the combined result of the slowdown in Italian and French economic growth and the stagnation in Germany. Growth in the Central and East European region continued to outperform that of the euro area. On the whole, the risks generated by the coronavirus pandemic have hit the global economy in an extremely weakened state. As a result of this, EU countries, which are already exhibiting subdued growth, may find themselves in an even more difficult situation, and Europe may once again be one of the weakest links as a result of the high level of debt, structural weaknesses, the rigid institutional system and the vulnerable banking system.

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



Source: OECD, Ifo

In line with 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, machinery investment continued to dampen economic growth. Growth of the US economy may gradually decelerate in the coming period in parallel with the run-out of the growth supporting measures (tax cuts and infrastructural investment programme). Prospects are primarily shaped by developments related to the coronavirus pandemic, but at the same time, this year's presidential elections may also have substantial effect on economic performance.

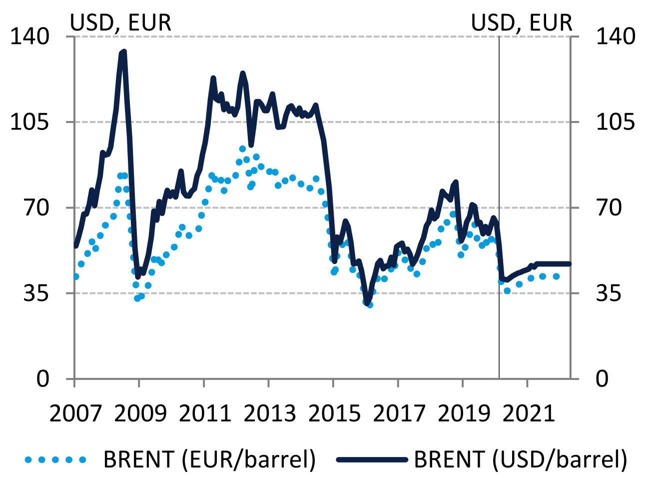
Growth in the major economies of the euro area moderated significantly in the fourth quarter of 2019. Economic growth in the euro area was 1.2 percent year on year **and 0.1 percent quarter on quarter in the last quarter of 2019. Growth in Italy and France declined on a quarterly basis. The expansion in 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 estimate of the Federal Statistical Office of Germany. Extremely restrained German growth was caused mainly by poor industrial output and exports and subdued growth in domestic consumption. **The Ifo index, which captures German economic outlook, and the Manufacturing PMI are still in the negative range** (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 recent months.**

As in the previous quarters, the Central and Eastern European region proved to be the growth engine 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, real economic convergence continued. Examining the region as a whole, domestic demand remains the key driver of growth.

The risks generated by the coronavirus pandemic have hit the global economy in an extremely weakened state. EU countries, which are already exhibiting subdued growth, may find themselves in an even more difficult situation, and Europe may once again be one of the weakest links as a result of the high level of debt, structural weaknesses, the rigid institutional system and the vulnerable banking system. In order to mitigate the negative effects, additional fiscal and monetary policy measures are likely to be taken all over the world. In addition, **the uncertainty surrounding the trade agreement following the exit of the United Kingdom from the EU** continues to represent substantial risk, and therefore a 'hard Brexit' should be considered as a realistic scenario.

In line with analysts' expectations, **inflation in the euro area** fell to 1.2 percent **in February, due to the fall in fuel prices. Core inflation rose to 1.2 percent,** which may have been attributable to rises in the prices of processed food and services. **The world market price of crude oil was around USD 55/barrel on average up to the early March meeting of OPEC+ in Vienna.** At the meeting, Russia did not approve the proposal of Saudi Arabia to reduce production further, and thus from 1 April oil production with no limit may commence. **Due to the failure to reach an agreement at the meeting, an oil price war had broken out between Russia and Saudi Arabia, as a result of which the world market price of Brent crude oil declined to around USD 30/barrel** (Chart 2)**.** The more than 30 percent slump in the world market price of oil has been unprecedented since the 1991 Gulf War. **Looking ahead, oil price developments are surrounded by considerable uncertainty.** On the demand side, this is due to the effects of the coronavirus pandemic, while on the supply side it is questionable, for the time being, how long the largest oil producing countries are able to tolerate oil prices of close to USD 30 and the related economic effects. The world market price of both industrial commodities and unprocessed food declined in February.

Chart 2: **World market prices of Brent crude oil**

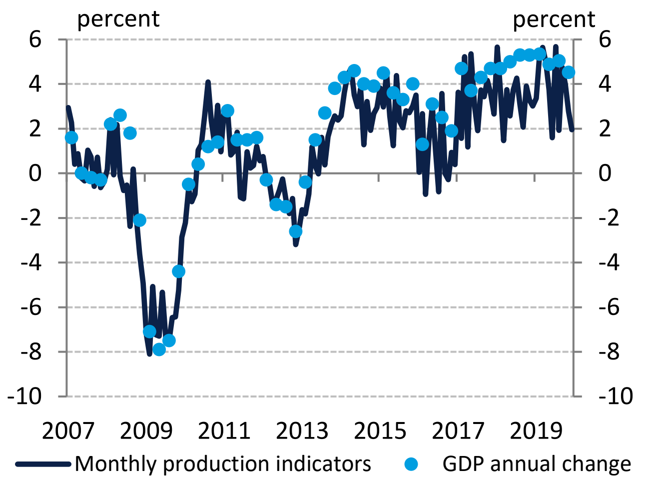


Source: Bloomberg

1.2 Domestic real economy developments

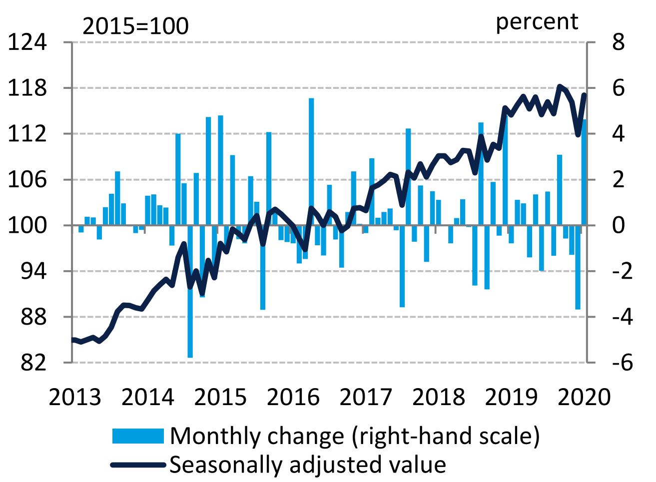
In the fourth quarter, both industrial and construction output were more moderate relative to earlier quarters, while retail sales showed dynamic growth, exceeding expectations. The seasonally adjusted unemployment rate remained at 3.4 percent. Based on the number of vacancies, corporate labour demand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

Chart 4: Development in industrial production



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 grew by 4.5 percent year on year. Based on seasonally and working-day adjusted data, Hungary's GDP rose by **1.0 percent quarter on quarter**. **A wide range of sectors contributed to growth.** Hungary ranked second 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). **On the expenditure side, domestic demand factors** (consumption and investment) continued to expand significantly and support economic growth, **while net exports made a negative contribution to GDP growth.**

In January 2020, **industrial output was up by 2.4 percent** year on year, while output rose by 4.6 percent compared to the previous month (Chart 4). **The seasonally and working-day adjusted index increased by 2.7 percent.** Representing a significant share, automotive industry output rose by 10.6 percent in an annual comparison following the decline seen in the previous month. As regards the other sectors, **electric machinery production** (17.7 percent) showed significant growth. In addition, **growth in the domestic manufacture of computer, electronics and optical products and food production also exceeded the industrial average**. In January, **the performance of the metal industry** (-13.2 percent) and **the output of the textile industry** (-8.8 percent) declined year on year.

Based on preliminary data, **annual growth in exports and imports was 2.8 percent and 2.4 percent**, respectively, in euro terms. As a result, the trade surplus rose by EUR 49 million. In December 2019, the terms of trade continued to improve year on year, influenced positively by the change in the price of mineral fuels, machinery and transportation equipment.

In January 2020, construction output decreased by 2.5 percent year on year and it rose by 0.9 percent relative to the previous month. Output of the two main construction groups showed contrasting developments: construction of buildings decreased by 4.4 percent, while other construction increased by 1.5 percent. **The volume of new contracts increased by 8.2 percent year on year**, the volume of new contracts concluded for construction of buildings rose by

13.8 percent, while for other construction works the volume decreased by 22 percent. The month-end volume of construction companies' contract portfolio fell short of the value registered a year ago by 14.7 percent.

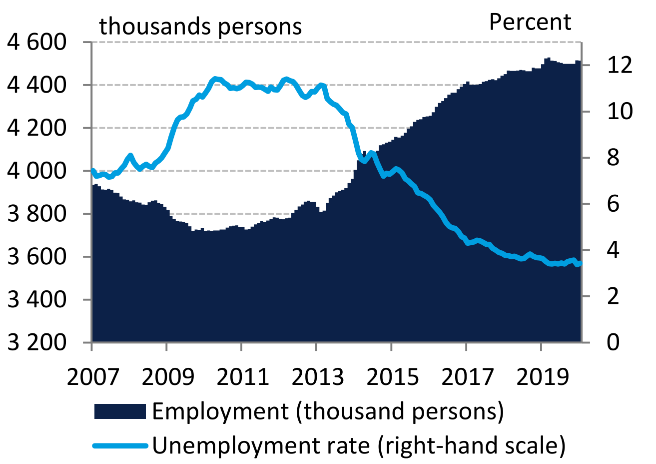
In January, **retail sales volume** (including sales of vehicles and components) **was up by 7.7 percent year on year after accounting for calendar effects.** The rise in total retail sales volume was still mostly attributable to non-food products (technical and industrial goods, mail order shops). **The expansion in sales of vehicles and components also continued to accelerate as the increase was 23.6 percent.** Sales of business groups selling non-durable goods continued to increase and contributed significantly to growth in retail sales.

1.2.2 Employment

According to the (seasonally adjusted) data of the Labour Force Survey, both the labour force participation rate and the number of people in employment essentially remained unchanged between November 2019 and January 2020. The number of people in public employment and the number of people employed abroad decreased to 104,000 and 118,000, respectively. **The seasonally adjusted unemployment rate remained at 3.4 percent.** (Chart 5).

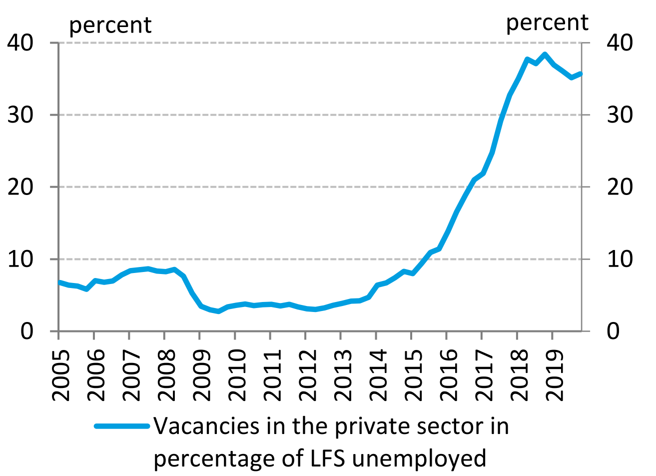
In the last quarter of 2019, based on the number of vacancies, **corporate labour demand continued to decline in a wide range of sectors.** The labour market **tightness indicator**, calculated from the ratio of job vacancies and unemployed persons, did not change significantly compared to the previous quarter and **remained at a high level** (Chart 6).

Chart 5: Number of persons employed and the unemployment rate



Source: HCSO

Chart 6: Development of labour market tightness indicator

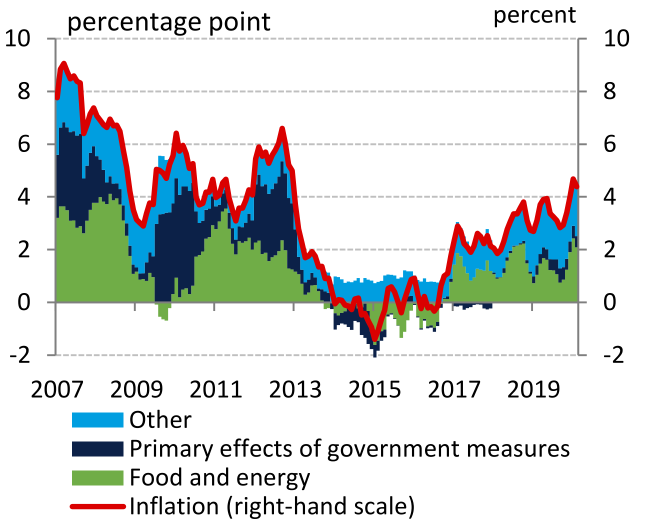


Note: Quarterly data.
Source: National Employment Service, HCSO

1.3 Inflation and wages

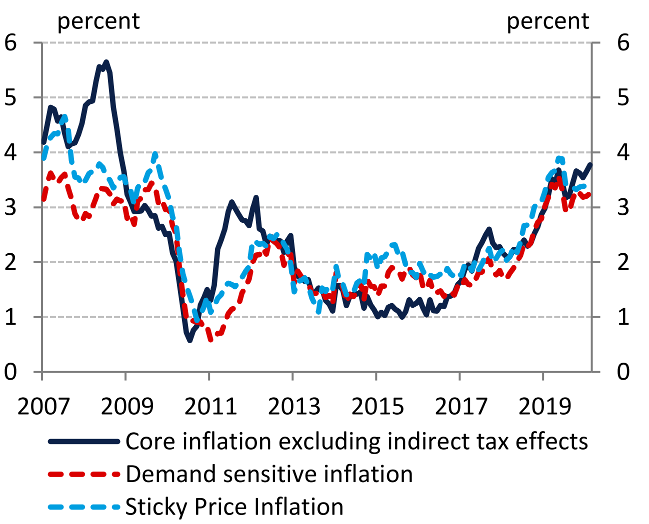
In February 2020, inflation calculated on a year-on-year basis was 4.4 percent. Core inflation stood at 4.1 percent and core inflation excluding indirect taxes was 3.8 percent. Underlying inflation indicators capturing persistent trends remained unchanged compared to the previous month. In December 2019, gross average wages in the private sector rose by 13.2 percent year-on-year. Wage dynamics, still exceeding the 8 percent rise in the minimum wage and the guaranteed wage minimum, were primarily 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 December 2019, gross average wages in the private sector rose by 13.2 percent year on year. Compared to usual seasonal patterns, regular average wage rose at a lower rate on a monthly basis. Bonuses paid by companies at the end of the year exceeded substantially the rate observed in previous years and characterised a wide range of sectors. 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 as of 1 July. Within the private sector, similarly to the entire year, wage dynamics in manufacturing exceeded significantly wage growth in the market services sector. Wage dynamics, exceeding the 8 percent rise in the minimum wage and the guaranteed wage minimum, were still primarily attributable to tight labour market conditions determining the underlying wage setting trend.

1.3.2 Inflation developments

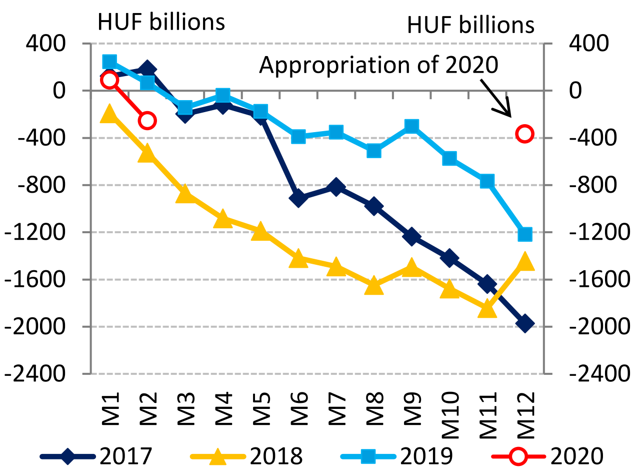
In February 2020, inflation calculated on a year-on-year basis was 4.4 percent. Core inflation stood at 4.1 percent and core inflation excluding indirect taxes was 3.8 percent (Chart 7)**.** Compared to the previous month, inflation fell by 0.3 percentage point, while core inflation increased by 0.1 percentage point. The decrease in inflation was attributable to the decline in fuel prices, in addition to the base effects. Within core inflation excluding indirect taxes, inflation of market services stabilised at around 5 percent, while the price index for industrial goods continued to be moderate. In February, the rise in the prices of processed food continued to accelerate, due primarily to the increase in the prices of processed meat and dairy products.

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 January 2020, agricultural producer prices increased by 4.3 percent in annual terms, while domestic sales prices in sectors of consumer goods increased by 7.1 percent.

1.4. Fiscal developments

The central sub-sector of general government closed with a deficit of HUF 345 billion in February 2020, which exceeded the deficit registered in February 2019. At the end of February 2020, the deficit accumulated since the start of the year rose to HUF 255 billion. The rise in the cash-based deficit compared to last year was primarily caused by the higher EU expenditure and lower revenues from the EU.

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 general government closed with a deficit of HUF 345 billion in February 2020, which exceeds the deficit recorded in February 2019. At the end of February 2020, the deficit accumulated since the start of the year rose to HUF 255 billion (Chart 9). The rise in the cash-based deficit compared to last year is primarily caused by the higher EU expenditure and lower revenues from the EU.

In February 2020, **the tax and contribution revenues of the budget** increased by 6 percent, a total of HUF 67 billion, year on year. The rise in revenues compared to the previous year was equally attributable to the payments by enterprises, consumption tax revenues and wage-related revenues.

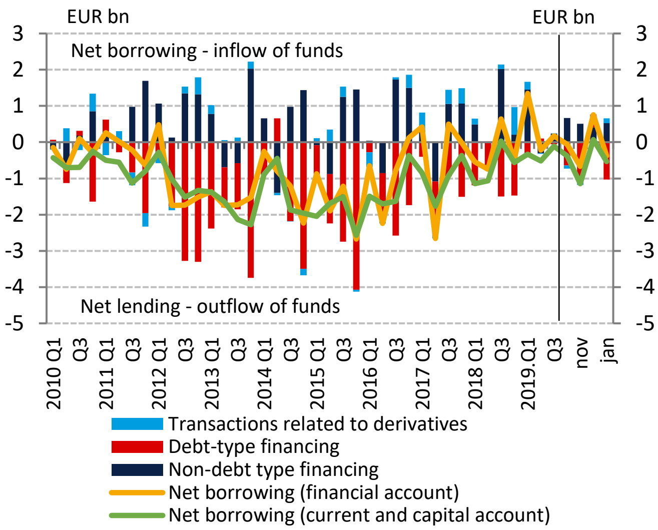
Expenditures of the central sub-sector in February 2020 were HUF 249 billion higher than in February 2019. The difference appeared in expenditures related to EU transfers, expenditures of central budget organisations and chapters, and family allowances. In February, payments related to family allowances and social benefits exceeded the value recorded in February 2019 by HUF 35 billion, which was attributable to the lower value of the base period compared to the usual monthly time profile. The reason for this was that last year, contrary to the usual practice, the family allowances for February were paid out already at the end of January.

On 18 March 2020, the government announced measures to mitigate the economic impact of the coronavirus pandemic. These include a moratorium on all loan repayments, capping consumer loan interest rates, the protection of lease contracts in sectors that are particularly affected, a four-month suspension of employer SSC (social security contribution) and a reduction in employee SSC. In addition, until June 30, taxi drivers are exempted to pay the lump sum tax of small enterprises (KATA), and companies involved are exempt from Tourism Development Contributions and labour laws are more flexible to support home office and protection of health.

1.5. External balance developments

In January, net lending of the economy rose to EUR 537 million, while the current account deficit dropped to EUR 107 million. The improvement in the external balance indicators was partly attributable to growth in the trade balance and partly to the increasing absorption of EU transfers. As regards the financing trends, in January the inflow of foreign direct investments continued, while the net external debt of the economy declined by more than EUR 1 billion.

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 January, net lending of the economy rose to EUR 537 million, while the current account deficit dropped to EUR 107 million. The improvement in the external balance indicators is primarily attributable to growth in the goods balance, and the increasing absorption of EU transfers also supported the rise in the indicators. Based on preliminary data, the income deficit did not change materially.

According to financial account data, foreign direct investments rose further by some EUR 570 million in January, while debt liabilities of the economy declined by more than EUR 1 billion (Chart 10)**.** According to financial account data, net lending amounted to around EUR 370 million. Direct investments in the economy increased further, due mainly to reinvested earnings. By contrast, net external debt declined by more than EUR 1 billion, contributed to by all sectors. The decline in government debt primarily related to the absorption of EU transfers, while at banks and corporations it was mostly attributable to increases in external receivables.

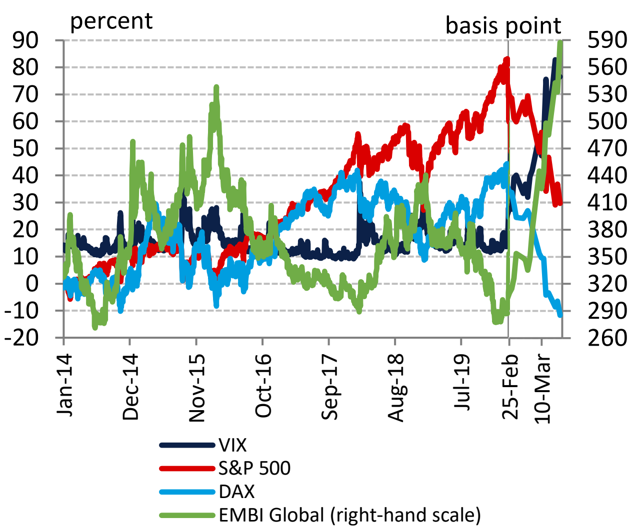
2. Financial markets

2.1. International financial markets

Since the last interest rate decision, international market sentiment deteriorated sharply. Over the past month, market participants have focused on coronavirus concerns, uncertainties related to global growth and the related responses of central banks. At the end of the period, risk appetite deteriorated significantly in international financial and capital markets, as a result of which stock market indices fell and foreign exchange market volatility rose significantly. Yields on developed market government securities showed a mixed picture: US yields declined, while the German ones rose. In emerging countries, yields increased and exchange rates depreciated in the past month. Due to the expected fall in demand for commodities and an increase in supply, oil prices declined considerably, by around 40 percent.

Since the last interest rate decision, international sentiment worsened markedly. Over the past month, market participants have focused on coronavirus concerns, uncertainties related to global growth and the related responses of central banks. At the end of the period, risk appetite fell significantly in international financial and capital markets, as a result of which stock market indices plummeted and foreign exchange market volatility rose. Yields on developed market government securities showed a mixed picture: US yields declined, while the German ones rose. The impact of the virus on tourism, aviation and maritime transport will further reduce global demand for commodities. In line with these effects and the increase in supply, oil prices decreased materially, by roughly 40 percent, and thus Brent and WTI at present stands at USD 27 and USD 24, respectively.

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

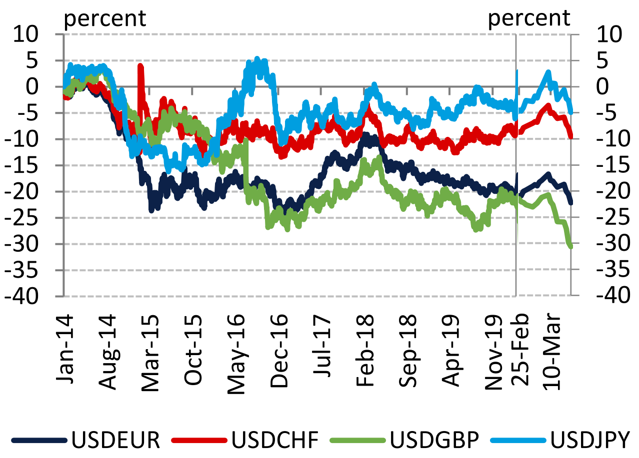


Source: Bloomberg

The VIX index, the key measure of equity market volatility, decreased by nearly 48 percentage points to 76 percent, while the emerging bond market EMBI Global spread rose by 277 basis points to 587 basis points (Chart 11). **In the past month, developed stock exchange indices fell by 20-30 percent, and the MSCI composite index, which measures emerging market performance, also dropped at a similar rate of 24 percent. The dollar strengthened against both emerging and developed market currencies** (Chart 12). Since in the context of the Fed interest rate decisions the dollar depreciated significantly, after the ECB's period-end communication the EUR/USD exchange rate returned roughly to the level observed a month ago. The Japanese yen and the Chinese renminbi depreciated against the dollar, while the pound sterling appreciated against the euro. On the whole, the exchange rate of the Swiss franc barely changed against the euro during the period. The price of gold and silver fell by 10 percent and 33 percent, respectively, during the period.

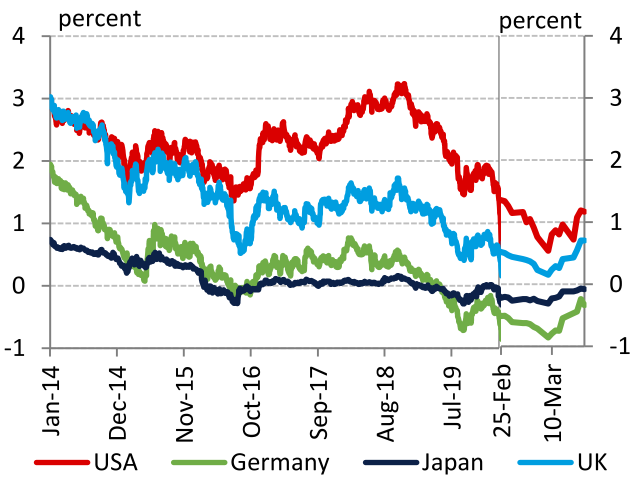
Developed market bond yields, which were significantly affected by the central bank's decision and the loosening

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



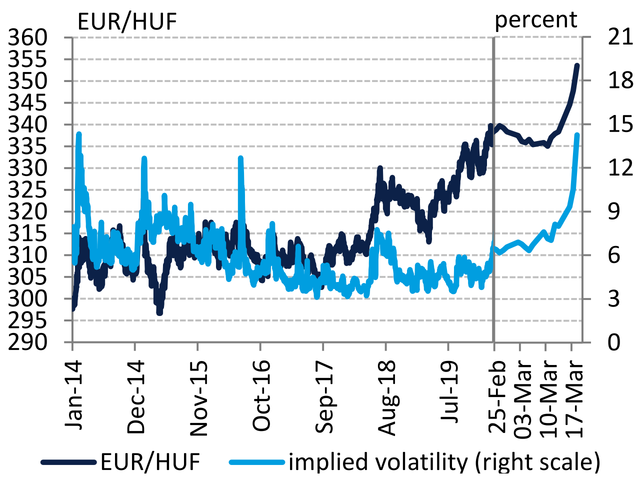
Source: Bloomberg

fiscal policy expected in connection with the coronavirus, **varied since the last interest rate decision** (Chart 13)**.** The US 1-year yield fell by almost 110 basis points to 0.14 percent, while the 10-year yield declined by 16 basis points, to 1.16 percent. At the same time, German yields rose throughout most of the period, followed by a decline, and thus the ten-year yield rose by a total of 27 basis points to -0.34 percent. **Emerging countries were characterised by increases in yields and exchange rate depreciation in the past month.** Government securities yields rose by 220 basis points in the most vulnerable Russian market due to falling commodity prices, while the ruble depreciated by 25 percent against the dollar. Brazilian ten-year yields were up by 260 basis points, while the real depreciated by 17 percent.

2.2. Developments in domestic money market indicators

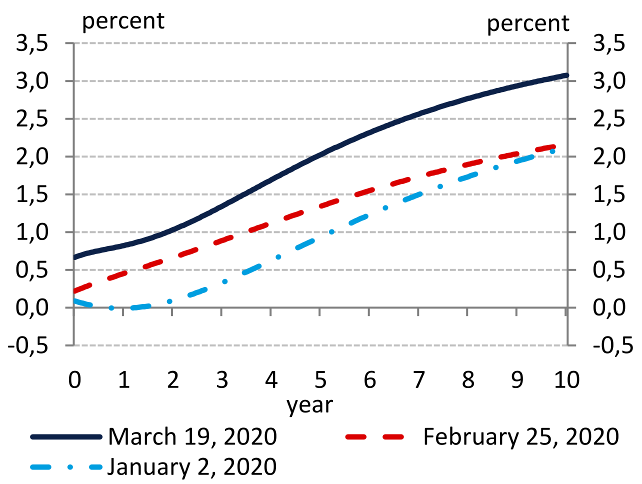
During the period, the forint depreciated against the euro, in line with the currencies of the region and to a similar degree as the Polish zloty. The government securities yield curve shifted upward and became steeper. The 3-month BUBOR rose in the first half of the period, followed by a decline, and thus it increased by 3 basis points to 0.63 percent during the period under review. Most of the government securities auctions were characterised by adequate demand; the average auction yields rose at shorter maturities, while they declined at medium-term maturities; at the same time, at long maturities the Government Debt Management Agency accepted no bids in several cases due to low demand.

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 February interest rate decision, the forint exchange rate weakened against the euro by 4-5 percent from 338 to around 355 (Chart 14). The forint, in line with the trends observed in the region, depreciated under wide volatility to a similar degree as the zloty.

The 3-month BUBOR, relevant for monetary policy transmission, rose by 3 basis points to 63 basis points since the last interest rate decision. The government yield curve shifted significantly upward (Chart 15). An increase of 42-53 basis points was observed at the 1-3 year section of the yield curve, 85 basis points at five-year maturity and 121-140 basis points at the long end. Accordingly, the government securities yield curve became steeper during the period, as the greatest yield increase was registered at the long section.

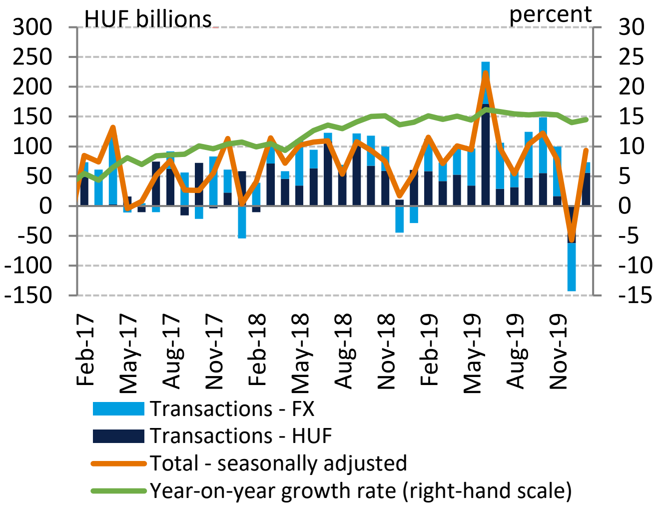
In the past month, most of the discount Treasury bill and government bond auctions were characterised by adequate demand. At the 3 and 12-month Treasury bill auctions the Government Debt Management Agency occasionally accepted less than the announced volume. The average yield on 3-month auctions rose from 0.36 percent to 0.62 percent, and the average auction yield on 12-month Treasury bill auctions increased from 0.51 percent to 0.85 percent. Demand was variable at the auctions of long-term government securities. At the end of the period, demand for long-term government securities mostly declined significantly; at 5-year maturity the Government Debt Management Agency accepted less than the announced volume, while at the last auction of 10 and 20-year government securities it accepted no bid due to weak demand. At 3-year maturity, the announced amount was accepted, while due to high demand the Government Debt Management Agency accepted bids for 7-year floating-rate bond in a higher amount. The average auction yield on 10-year government securities was 2.18 percent at the beginning of the period. The latest average auction yield on 5-year government securities fell by 16 basis points to 1.46 percent, while at 3-year securities it rose by 34 basis points to 0.83 percent. The Hungarian 5-year CDS spread rose by 40 basis points during the period under review, and currently stands at 85 basis points.

Non-residents' holdings in forint government securities increased. Non-residents' forint government securities holdings increased by HUF 120 billion to HUF 4,327 billion, but at the end of the period the market share of forint government securities portfolio held by non-residents remained at 24 percent.

3. Trends in lending

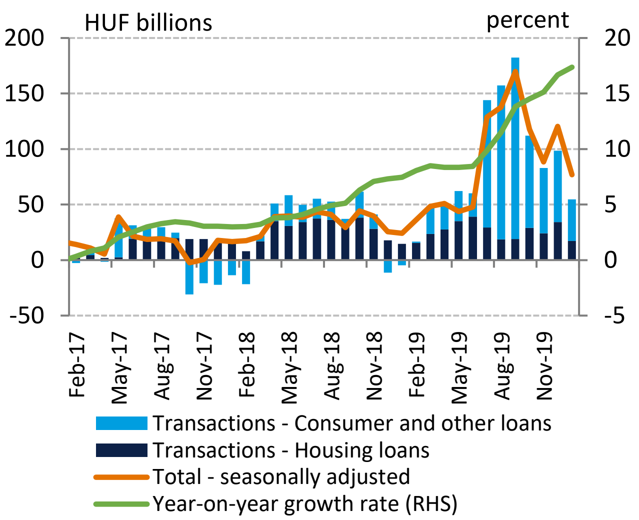
In January 2020, outstanding loans by credit institution to non-financial companies increased by 14.5 percent year on year. In the household segment, by January the rate of increase in outstanding borrowing rose to almost 17.4 percent.

Chart 16: Net borrowing by non-financial corporations



Source: MNB

Chart 17: Net borrowing by households

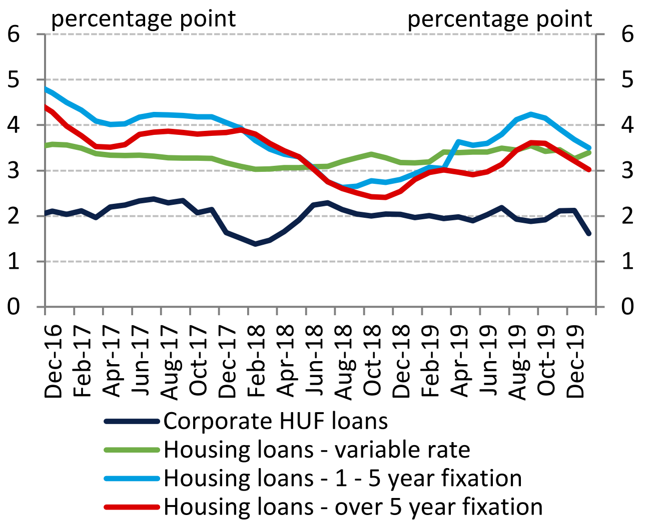


Source: MNB

Following the high amount of repayments at the end of last year, in January 2020 outstanding loans of non-financial enterprises from the credit institution sector increased by HUF 73 billion due to transactions (Chart 16). This exceeded the year-on-year values seen in previous years. As a result, outstanding loans of enterprises rose by 14.5 percent in annual terms. During the month, credit institutions disbursed loans to enterprises in an exceptionally large amount, exceeding HUF 300 billion, 60 percent of which included loans in the amount of over HUF 5 billion. Accordingly, compared to previous periods, in January lending was concentrated to an even larger degree both in terms of banks and sectors.

Outstanding borrowing of households grew further in January, and thus the annual growth rate reached 17.4 percent (Chart 17). The value of new contracts increased by more than 50 percent year on year. In January, the credit institution sector concluded new loan contracts with households in the amount of almost HUF 200 billion. Demand for prenatal baby support loans continued to be strong, accompanied by dynamic disbursement of housing loans and personal loans, and thus the additional impact of the product continued to be high.

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 interest rate spread of forint corporate loans was 1.61 percent in January 2020, representing a major decrease compared to the previous month; the decline was essentially attributable to the concentrated issuance of large loans (Chart 18). Spreads on housing loans continued to be materially higher than observed a year ago. **The average smoothed interest rate spread on variable rate housing loans, calculated on the basis of the annual percentage rate (APR), rose during the month** and amounted to 3.4 percentage points. **The spread on products with interest rate fixation periods longer than one year and up to 5 years declined by 0.16 percentage point, while that on products with interest rate fixation periods of more than 5 years dropped by 0.19 percentage point compared to December. The average spread on housing loans with interest rate fixation periods longer than one year and up to 5 years reached 3.5 percentage points in January, while the spread on products with interest rate fixation periods of more than 5 years was 3.02 percentage points.**