MACROECONOMIC AND

FINANCIAL MARKET DEVELOPMENTS

BACKGROUND MATERIAL

TO THE ABRIDGED MINUTES

OF THE MONETARY COUNCIL MEETING

OF 26 MAY 2020

MAY

2020

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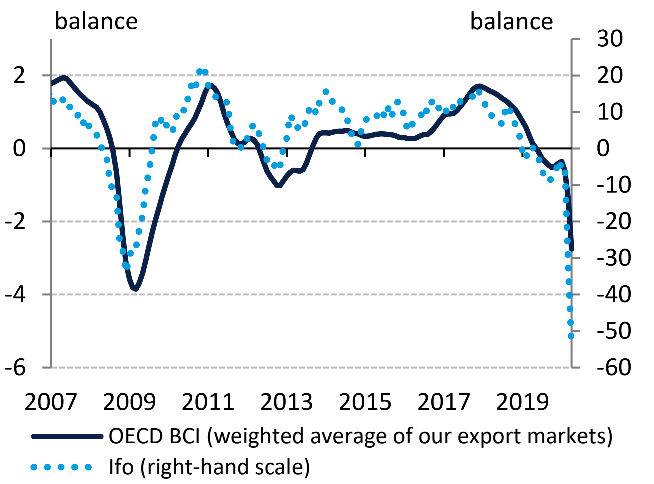
1. Macroeconomic developments

1.1. Global macroeconomic environment

In China, the 6.8 percent fall in GDP, registered in the first quarter, is the sharpest decline in the past 50 years; however, in April economic trends already showed signs of normalisation. Based on preliminary data, the US economy rose only by 0.3 percent in the first quarter (while it declined by 4.8 percent in annual terms), whereas the euro area and the European Union as a whole registered a year-on-year decrease of 3.2 percent and 2.6 percent, respectively. In April, US industrial production and retail sales volume fell by 15 and 21.6 percent, respectively, on a year-on-year basis. There is still great uncertainty, but at the same time an increasing part of the countries ponder over the easing of the restrictions and the restart of the economies.

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



Source: OECD, Ifo

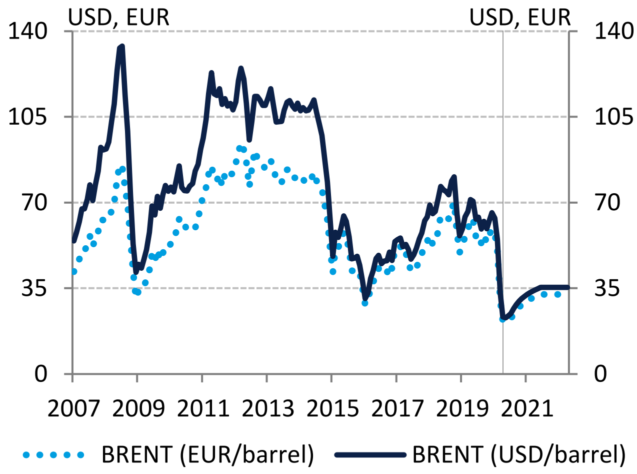
Currently, economic performance is primarily determined by the coronavirus pandemic and the measures taken to control it. The pandemic hit the global economy in a weakened state, and its negative economic impacts rapidly appeared in numerous countries. **Global tourism practically was brought to standstill in mid-March.** After the extensive implementation of travel restrictions the number of flights plunged worldwide.

The economic impacts of the coronavirus first appeared in China, in parallel with the outbreak of the pandemic. As a result of the quarantines, with shops closing down and factories suspending operation, China's economic performance substantially declined. **In the first quarter of 2020, the GDP of China dropped by 6.8 percent**, year-on-year, which was the sharpest decline, seen in the past 50 years. Due to the restart of the economy, business sentiment in the Chinese manufacturing industry improved; **in April industrial production grew by 3.9 percent in an annual comparison**. Following a major decline in the sales of vehicles (43.3 percent) in March, in April they were up by 4.4 percent year-on-year; however, despite this, a major fall in Chinese vehicle sales may be expected in 2020 as a whole.

In the first quarter of 2020, GDP of the United Stated grew merely by 0.3 percent year-on-year. Producing the largest decline in the 101-year history of the index, US industrial output contracted by 11.2 percent In April: manufacturing fell by 13.7 percent, and within that car and car parts manufacturing declined by more than 70 percent; relative to the previous month. **US industrial production dropped by 15 percent relative to a year earlier.** According to preliminary estimates **retail and catering sales** in the USA fell by 16.4 percent in April 2020 compared to the previous month after seasonal and working-day adjustment, while **it was down by 21.6 percent year-on-year.** On the week ending on 9 May, 2.981 million initial applications for unemployment benefit were submitted in the USA, thereby increasing the total number of initial applications submitted to the competent authorities since the week ending on 21 March to 36.5 million.

In the euro area and in the EU GDP fell by 3.2 and 2.6 percent, respectively, year-on-year. The Ifo index, capturing the German economic outlook, declined further in April (Chart 1). **Already been moderate before the global spread of the coronavirus, the business climate in Europe further deteriorated due to impacts of the pandemic.** Fast recovery from the recession may be also hampered by the high debt levels, structural weaknesses, the rigid institutional system and the vulnerable banking sector. It is a positive sign **that by mid-April and early May in the majority of Hungary's most important export markets the pandemic curves started to decline.** In parallel with this, some of the countries started to ease restrictive measures.

Chart 2: World market prices of Brent crude oil



Source: Bloomberg

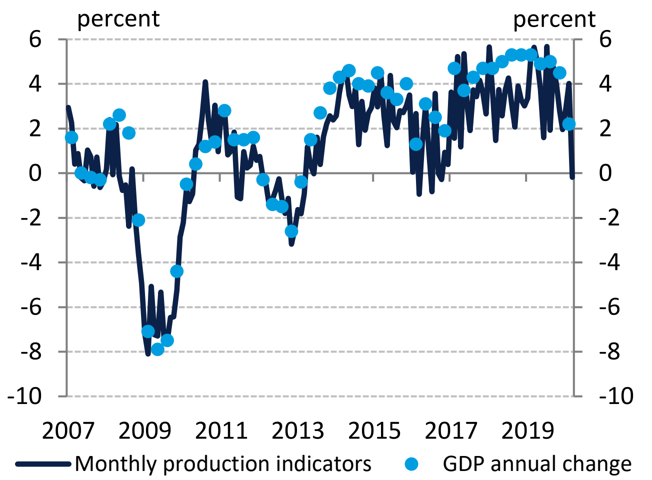
The easing of the anti-pandemic restrictions commenced in several regions. On 14 April, Austria permitted smaller shops to reopen, i.e. those below 400 square metres, while the Czech Republic and Slovakia cancelled the travel restrictions. **From 20 April, in Germany** shops with floor space of less than 800 m^2 were permitted to reopen in most of the federal states. Those hardest hit by the pandemic, Spain, Italy and the United Kingdom started to lift the various anti-pandemic measures from 11 May – in the latter this was limited, for the time being, to the moderate easing of the curfew measures. From early May, there is no curfew in 15 states of the United States.

Based on preliminary data, inflation indicators measured in the euro area decreased to a lesser degree than expected by analysts **In April**, reflecting a fall in fuel prices. Accordingly, inflation was 0.3 percent, while core inflation was 0.9 percent. **The world market price of Brent crude oil was volatile in the past period** (Chart 2). In April, Saudi oil supply substantially rose, which led to a significant fall in oil prices. However, since the production cut's entry into force on 1 May, the price of the Brent crude oil started to rise and in mid-May it was close to USD 30/barrel. The world market price of both industrial commodities and unprocessed food declined in April.

1.2. Domestic real economy developments

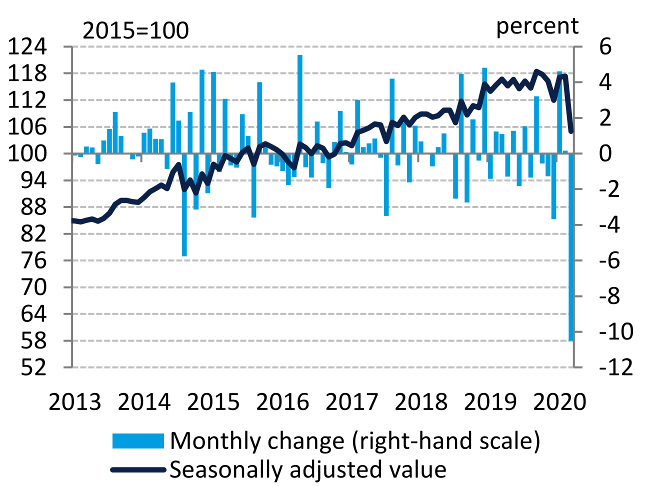
In the first quarter of 2020, Hungary's gross domestic product grew by 2.2 percent year-on-year. The impacts of the coronavirus were reflected by the decline in industrial and construction output in March, and also in the retail sales volume. Food and drug sales rose dynamically, while turnover of durable goods substantially declined. In the first quarter of 2020 total employment fell by 0.7 percent year-on-year. The vast majority of those who lost their jobs increased the number of the inactive rather than that of the unemployed, and thus the seasonally adjusted unemployment rate rose slightly and stood at 3.6 percent in the first quarter.

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

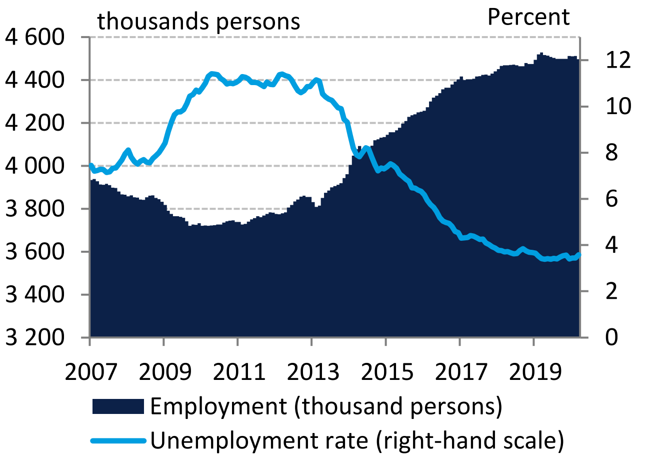
According to the HCSO's preliminary data release, **in the first quarter of 2020 gross domestic product grew by 2.2 percent year-on-year** (Chart 3), which – based on the currently available data – puts Hungary in the fourth place in the European Union's growth ranking. However, Hungary's GDP **fell by 0.4 percent on a quarter-on-quarter basis**. The strong growth in Hungary's GDP, also in an international comparison, in the first quarter was also supported by the significant carry-over effect resulting from last year's economic growth. **Hungary's economic growth exceeded both the euro area's (-3.2 percent) and the European Union's growth rate**, and thus real economic convergence substantially increased in the first quarter of 2020.

In March 2020, **industrial output** was down by **5.6 percent** year-on-year, while the seasonally and working-day adjusted index fell by 10.0 percent (Chart 4). Output **declined by 10.4 percent compared to the previous month**, and thus production fell to a level unprecedented since mid-2017. **Production in the manufacturing industries developed differently. Representing the largest share, automotive industry output fell by 19.8 percent in annual terms,** resulting from the factory stoppages announced from mid-March**.** Despite the pandemic, the performance of **food industry** increased in Hungary (12.7 percent) and also in all countries of the region. **Hungarian manufacturing PMI rose moderately after the historic low in March** (from 29.1 points to 33.6 points).

Based on preliminary data, **exports and imports fell by 7.3 percent and 5.3 percent, respectively, in euro terms,** year-on-year **in March 2020**. **Compared to last March, merchandise trade balance declined by EUR 208 million.** As a result of the coronavirus pandemic, Hungary's external trade substantially fell in March compared to the previous month; exports and imports fell short of the amount registered in February by 15.6 percent and 7.3 percent, respectively. **The merchandise trade balance amounted to EUR 436 million, which falls short of the one registered in February by EUR 694 million. In February 2020, the terms of trade continued to improve year-on-year** (1.6 percent). The change in the price of mineral fuels, machinery and transportation equipment influenced the terms of trade positively, while the change in the price of food and various processed goods made a negative contribution.

In March 2020, construction output was down by 3.4 percent year-on-year, and by 5.3 percent relative to the previous month, based on the seasonally and working-day adjusted data. The output of the two main construction groups showed opposite trends: construction of buildings increased by 0.3 percent, while other construction decreased by 10 percent year-on-year. **The volume of new contracts declined by 9.9 percent year-on-year.** The volume of new contracts concluded for construction of buildings declined by 31.4 percent, while for other construction works the volume increased by 18.9 percent. The month-end volume of construction companies' contract portfolio fell short of the value registered at end of March 2019 by 16.3 percent.

Chart 5: Number of persons employed and the unemployment rate



Source: HCSO

In March, **retail sales volume** (including sales of vehicles and components) **was up by 3.9 percent year-on-year after calendar adjustment. The measures taken to prevent the spread of the coronavirus affected the various groups of retail activity to a different degree.** The rise in the turnover of pharmaceutical and medical products, and perfumes reached 40.1 percent in March, while sales of food and grocery products was up by 12.0 percent year-on-year. On the other hand, demand for durable goods materially declined. As a result of the restrictive measures, **fuel consumption fell by 15.6 percent** compared to last year. In addition, sales of vehicles and components declined by 3.6 percent.

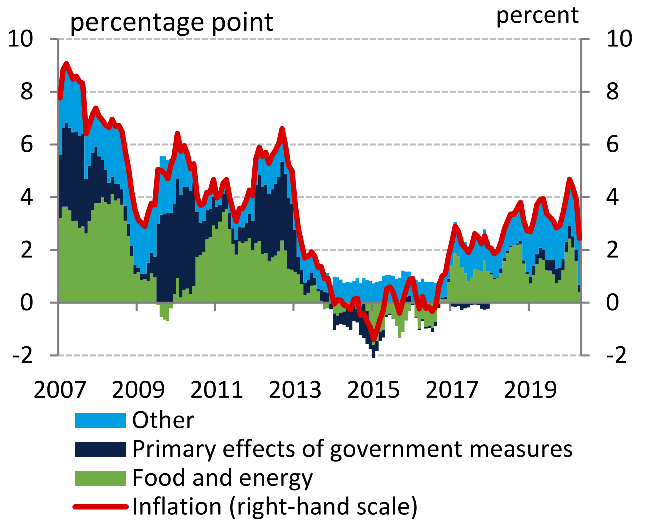
1.2.2. Employment

Based on the data of the Labour Force Survey, **in the first quarter of 2020 total employment declined by 0.7 percent**; however, the number of employees in the private sector rose by 0.4 percent **in an annual comparison**. The decline in the number of manufacturing employees continued, accompanied with a decrease of number of employees the market services sectors and in the transportation and tourism sector also decreased as well. The decline in certain branches of the private sector was offset mostly by the rise in the number of construction employees. **The seasonally adjusted unemployment rate rose moderately and stood at 3.6 percent in the first quarter (Chart 5). The vast majority of those who lost their jobs increased the number of the economically inactive rather than that of the unemployed.** In line with the methodology of the Labour Force Survey, this was attributable to the fact that the persons who lost their jobs, primarily due to the restrictive measures, did not seek employment actively and/or would have not been able to start working within 2 weeks. Based on data published by the National Employment Service, in March 2020 the number of registered jobseekers in Hungary was 281,200, exceeding the year-on-year figure by 0.9 percent.

1.3. Inflation and wages

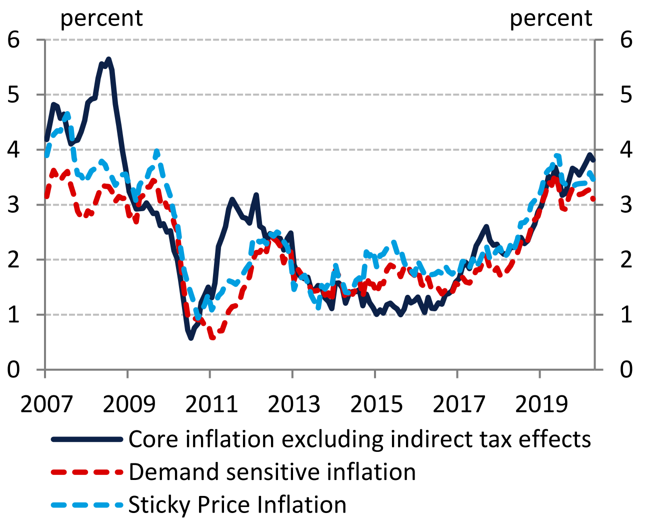
In April 2020, inflation calculated on a year-on-year basis was 2.4 percent, while core inflation and core inflation excluding indirect taxes stood at 4.3 and 3.8 percent, respectively. Underlying inflation indicators capturing persistent trends slightly decreased compared to the previous month. In February 2020, gross average wages in the private sector rose by 9.6 percent year-on-year. Regular average wage decreased at the same rate that registered in the previous years, while bonus payments fell short of last year's value.

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 February 2020, gross average wages in the private sector rose by 9.6 percent year-on-year. Regular average wage decreased at the same rate as in recent years, and bonus payments also fell short of last year's value. **Based on the detailed analysis of the sectors, manufacturing, the market service sector and the sectors paying wages below and over the average equally registered single-digit wage dynamics.** The consequences of the coronavirus pandemic have not yet had effects in February.

1.3.2. Inflation developments

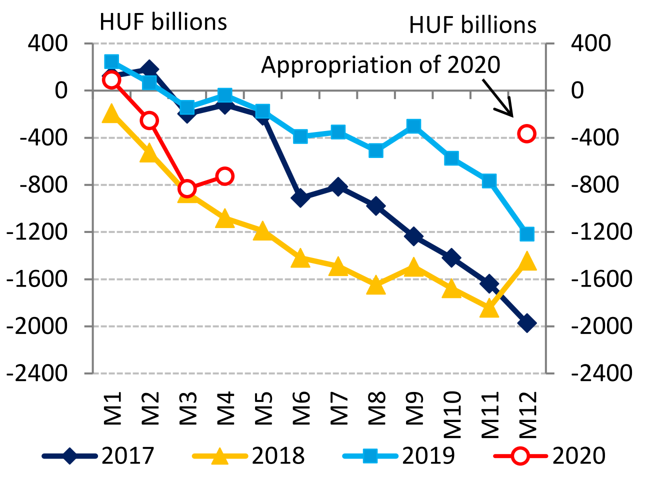
In April 2020, inflation calculated in annual terms was 2.4 percent. Core inflation stood at 4.3 percent (Chart 7)**. Core inflation excluding indirect taxes was 3.8 percent.** Relative to the previous month, inflation fell by 1.5 percentage points, while core inflation remained unchanged. The decrease in inflation is attributable to a sharp decline of 22.7 percent in fuel prices in annual terms. Within core inflation excluding indirect taxes, inflation of market services fell to 5.1 percent, while the price index for industrial goods remained moderate. The prices of processed food – primarily due to the dynamics in milk and dairy products prices – continued to rise.

Underlying inflation indicators capturing persistent trends (inflation of demand sensitive and sticky price products and services) **slightly decreased compared to the previous month** (Chart 8). In March 2020, agricultural producer prices increased by 10.3 percent in annual terms, while domestic sales prices in sectors of consumer goods increased by 7.9 percent.

1.4. Fiscal developments

The central sub-sector of the general government closed with a surplus of HUF 104 billion in April 2020, and thus the deficit accumulated since the start of the year fell to HUF 727 billion. The cash deficit declined as a result of the incoming EU grants and revenues from the sale of the 5G concessions; however, the protection against the coronavirus pandemic, and the declining growth in tax and contribution revenues pointed to a rise in deficit.

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 general government** closed with a surplus of HUF 104 billion in April 2020, and thus at the end of April 2020 the deficit accumulated since the start of the year fell to HUF 727 billion (Chart 9). The decrease in cash deficit was primarily attributable to the incoming EU grants and the revenue of almost HUF 130 billion from the sales of the 5G concessions. On the other hand, declining dynamics of tax and contribution revenues and the costs of the protection against the coronavirus pandemic pointed to a rise in deficit.

In April 2020, the revenues of the central sub-sector exceeded the revenue amount recorded in April last year by HUF 350 billion. The rise in revenues compared to the previous year was caused in full by the higher revenues from the EU and the early sales of the telecommunication concessions. However, after an average growth of 7 percent, seen in the first quarter, **the tax and contribution revenues of the budget stagnated** year-on-year. This partly reflected the tax cutting measures related to the coronavirus pandemic.

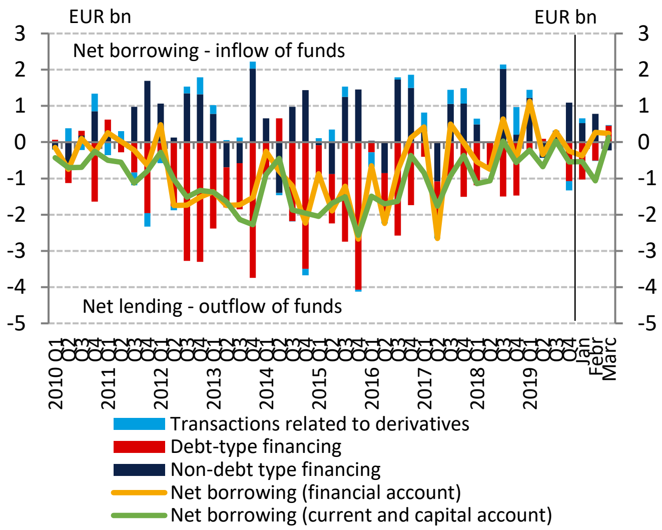
On the whole, **tax revenues in April** stagnated year-on-year. Both the payments by enterprises and the social insurance contributions fell by 4 percent, while consumption taxes rose by 2 percent following the average growth of 8 percent in the first quarter; payments by households were up by 9 percent.

Expenditures of the central sub-sector rose substantially by HUF 348 billion, year-on-year, which is almost entirely attributable to the extraordinary healthcare expenditures related to emergency situation caused by the coronavirus pandemic. According to the Convergence Programme, the budget estimate for direct protection measures, procurement of equipment, investment expenditures and other measures related to the pandemic is about HUF 600 billion.

1.5. External balance developments

In March, net borrowing was EUR 131 million, while current account deficit amounted to EUR 311 million. Following the outliers in February, net lending and current account both adjusted downwards due to the declining trade surplus. As regards the financing trends, in March the net external debt of the economy rose by EUR 460 million, while foreign direct investments decreased moderately.

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 March, net borrowing of the economy was EUR 131 million, while current account deficit amounted to EUR 311 million. (Chart 10)**.** The developments in the external balance indicators were linked to the decline in trade surplus, determined by rising imports together with decreasing export revenues. The absorption of EU transfers also made a positive contribution to the country's net lending in March. Based on preliminary data, the income deficit did not change notably.

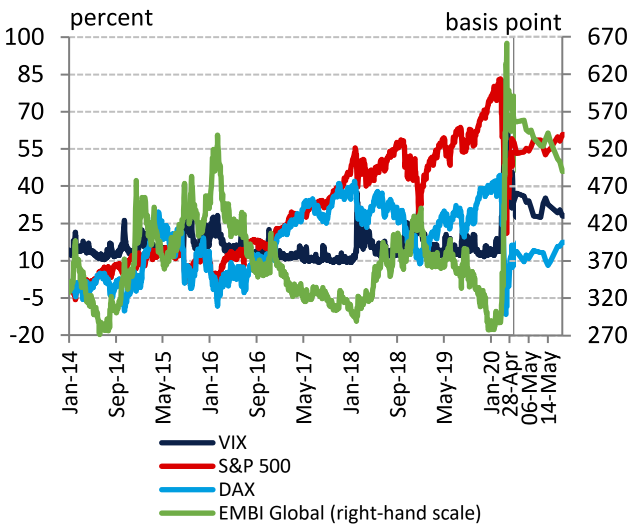
According to the financial account data, foreign direct investments slightly decreased in March, while debt liabilities of the economy increased. Similarly to the real economy side, net borrowing developed also according to the financing trends due to a rise of EUR 460 million in net external debt, while foreign direct investments declined by roughly EUR 90 million. The rise in net external debt reflected a substantial fall in the banking sector's external receivables.

2. Financial markets

2.1. International financial markets

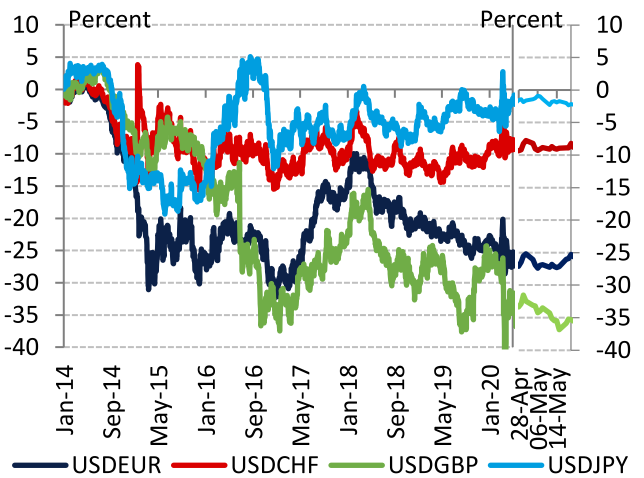
Since the last interest rate decision international financial market sentiment has improved, which was mostly due to the decreasing number of patients who contracted the coronavirus and growing expectations about the restart of the global economy. At the same time, the VIX index at 28 percent and the emerging bond market EMBI Global spread at 489 basis points still signal high global risks. The euro appreciated against most of the developed market currencies. Oil prices rose significantly, and as a result, the Brent stands at around USD 37.

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



Source: Bloomberg

Chart 12: Developed market FX exchange rates



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

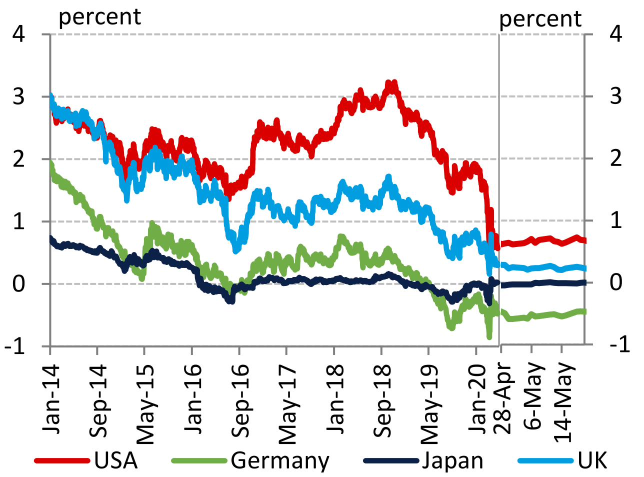
Source: Reuters

In the period since the last interest rate decision international market sentiment has improved (Chart 11), which is attributable to a weakening growth in the number of patients who contracted the coronavirus and growing expectations about the restart of the global economy. Macroeconomic data realeses signalled a major decline in the first quarter of the year, but this did not come as a surprise to markets. In the period under review, risk appetite improved on the international financial and capital markets, which caused stock exchange indices to rise, while foreign exchange market volatility declined. On the other hand, developed market government securities' yields continued to decrease. Last month, concerns about the demand side of the oil market eased, and oil stocks decreased. As a result, oil prices substantially increased: the price of Brent rose by 78 percent close to USD 37, while that of WTI increased even more significantly, by 177 percent close to USD 35.

The VIX index, the key measure of equity market volatility, decreased by nearly 6 percentage points to 28 percent, while the emerging bond market EMBI Global spread fell by 100 basis points to 489 basis points (Chart 11). Nevertheless, both indicators continue to imply high global risks in historical terms. **The moderate rise observed last month in developed stock exchange indices continued, and thus they were up by 3-4 percent, and the MSCI composite index, which measures emerging market performance, also increased at a similar rate, by 3 percent.** The euro strengthened among developed currencies: it appreciated against the dollar and the British pound by one and 3 percent, respectively (Chart 12). Of the emerging market currencies, the Turkish lira, the Russian rouble, the South African rand and the Mexican peso appreciated – typically by 2-4 percent – against the dollar. The price of gold rose by 2 percent during the period, and at present it stands at USD 1,740.

Most of the US and German bond yields declined, while Japanese yields slightly rose (Chart 13)**.** The US 10-year

Chart 13: Yields on developed market long-term bonds



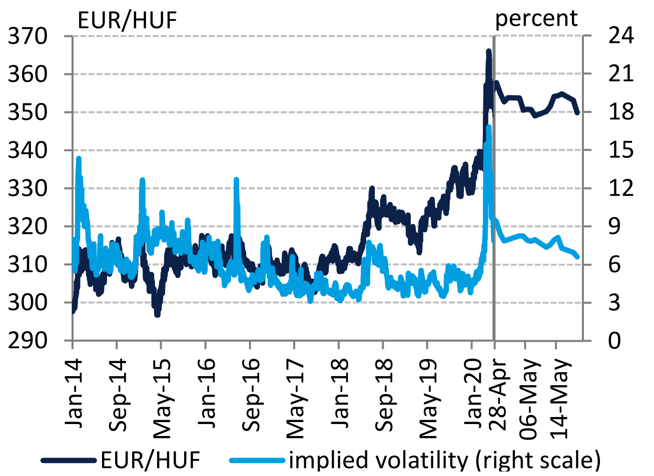
Source: Bloomberg

yield fell by 5 basis points to 0.66 percent, while the German yield – despite the decline up until the middle of the period – decreased only minimally, to -0.47 percent. **Emerging countries were also characterised by decreases in government bond yields.**

2.2. Developments in domestic money market indicators

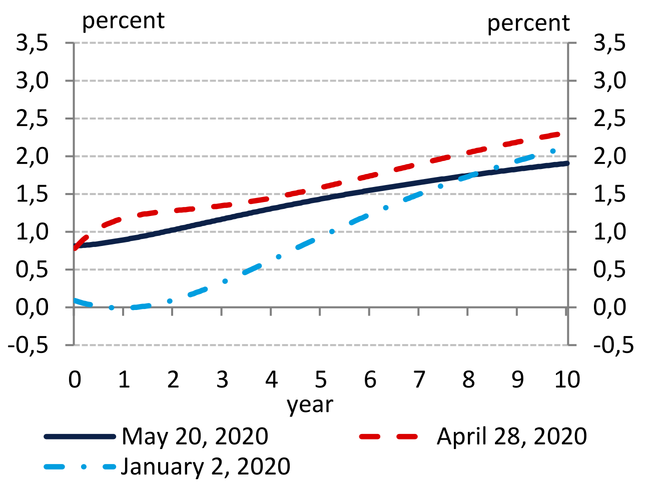
During the period under review, the forint appreciated against the euro below 350. Yields on government securities declined and the government securities yield curve flattened out. Demand was strong both at the short-term and long-term government securities auctions. Average auction yield fell on all maturities with the exception of the 5-year securities.

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 interest rate decision in April, the forint strengthened against the euro by 2.2 percent (Chart 14). Meanwhile, the Czech koruna and the Polish zloty depreciated by 2 and 0.4 percent, respectively, while the exchange rate of the Romanian leu to euro essentially remained unchanged.

Since the last interest rate decision, the government yield curve flattened out (Chart 15). A decrease of 18-29 basis points was observed at the 1-3 year section of the yield curve, 15 points at the five-year maturity and 41 basis points at the 10-year maturity.

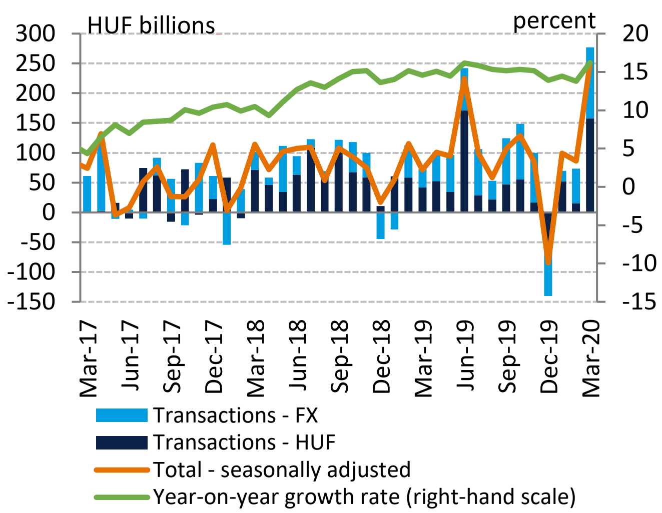
In the past month, both the discount Treasury bill and government bond auctions were characterised by strong demand. At the auctions of the 3- and 12-month Treasury bills, despite the favourable demand, the Government Debt Management Agency accepted the announced volume at each auction, totalling to HUF 140 billion. The average yield on 3-month auctions declined from 1 percent to 0.78 percent, and the average auction yield on 12-month Treasury bill auctions from 1.12 percent to 1.02 percent. Demand at the long-term government securities auctions was strong, and thus the Government Debt Management Agency was able to raise funds in an amount that exceeded the announced volume by HUF 54.6 billion. During the period, average auction yield on 3-year government securities fell from 1.41 percent to 1.34 percent, while on the 5-year securities it was up from 1.42 percent to 1.46 percent. On the other hand, the average yield on 10-year maturity declined materially, from 2.46 percent registered in the previous period to 2.05 percent. The Hungarian 5-year CDS spread fell by 2 basis points during the period under review, and currently stands at 80 basis points.

Non-residents' holding in forint government securities rose since the last interest rate decision. Non-residents' forint government securities holdings rose by HUF 123 billion to HUF 4,158 billion, while at the end of the period the market share of forint government securities held by non-residents increased to 22.5 percent.

3. Trends in lending

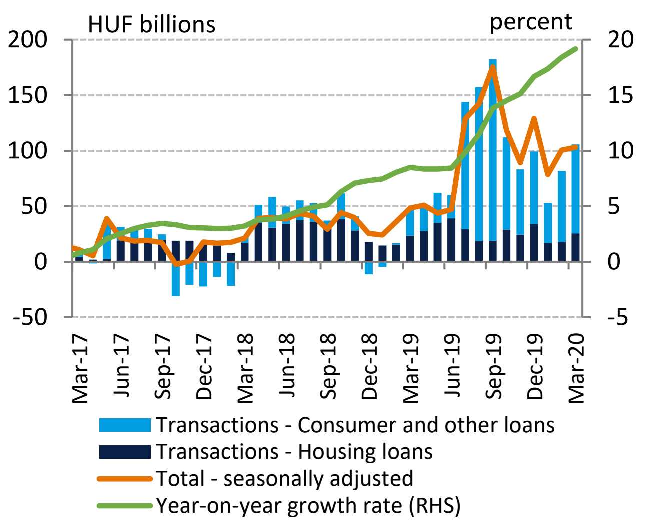
According to the seasonally adjusted data, in March 2020, outstanding borrowing of non-financial enterprises from the credit institution sector increased by HUF 250.4 billion due to transactions. Outstanding borrowing of households grew further in March, partly due to the moratorium on loan instalments and partly to the new loan applications already in progress, and thus the annual growth rate exceeded 19 percent.

Chart 16: Net borrowing by non-financial corporations



Source: MNB

Chart 17: Net borrowing by households

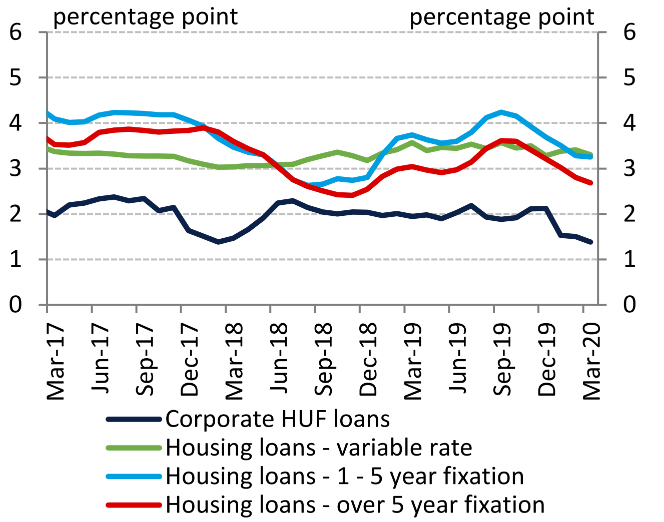


Source: MNB

According to seasonally adjusted data, in March 2020, outstanding borrowing of non-financial enterprises from the credit institution sector increased by HUF 250.4 billion due to transactions (Chart 16). The outstanding growth is predominantly attributable to the disbursement of special, high-volume transactions, and the higher than expected amount of the missed instalments due in the second half of the month resulting from the lengthy negotiations related to the moratorium (opt-out). In addition, the utilisation of credit lines also rose moderately in March. Accordingly, the annual growth rate exceeded 16 percent, while due to the global coronavirus pandemic lending activity may significantly decline already in the months ahead. According to our forecast, by the end of the year the annual growth rate in corporate lending may fell to as low as 5 percent. During the month new loan contracts were concluded in the amount of HUF 239 billion, more than 40 percent of which still comprised of high-amount (over HUF 5 billion) transactions.

Outstanding borrowing of households grew further in March, partly due to the moratorium on loan instalments and partly to the new loan applications already in progress, and thus the annual growth rate exceeded 19 percent (Chart 17). At the same time, due to the coronavirus pandemic, the rise in housing and personal loans due to transactions and the rate of the disbursement of new loans may both decline, primarily as a result of the fall in housing market and consumption demand. On the other hand, state-subsidised loan schemes may support lending to households: despite the deteriorating economic environment, demand for prenatal baby support loans may remain strong, albeit more moderate than last year, due to the favourable credit terms of the product, the state guarantee and the range of the borrowers relying on the scheme. In addition, the number and volume of contracts concluded under the Home Purchase Subsidy Scheme for Families rose both for used and newly built homes year-on-year.

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 1.38 percent in March 2020, representing a decrease of 0.12 percentage point compared to 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) also declined during the month** and amounted to 3.31 percentage points. **The spread on products with interest rate fixation periods longer than one year, up to 5 years and more than 5 years also fell slightly compared to February. The average spread on housing loans with interest rate fixation periods longer than one year and up to 5 years reached 3.26 percentage points in March, while the spread on products with interest rate fixation periods of more than 5 years was 2.69 percentage points.**