MACROECONOMIC AND

FINANCIAL MARKET DEVELOPMENTS

BACKGROUND MATERIAL

TO THE ABRIDGED MINUTES

OF THE MONETARY COUNCIL MEETING

OF 28 FEBRUARY 2023

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The background material 'Macroeconomic and financial market developments' is based on information available until 22. February 2023.

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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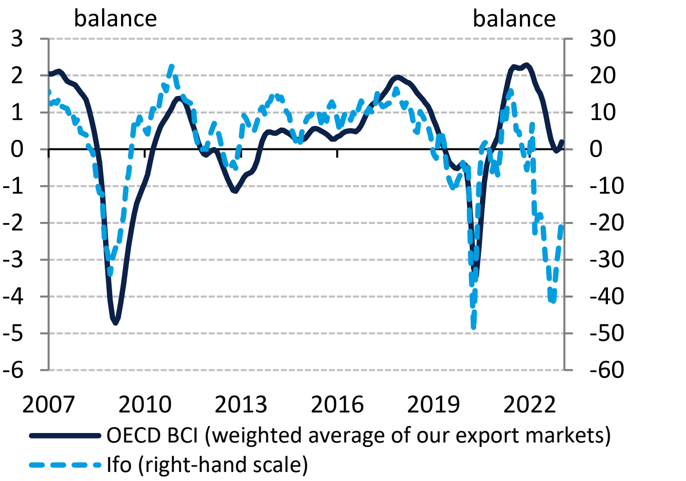
1. Macroeconomic developments

1.1. Global macroeconomic environment

In 2022 Q4, economic growth in major economies slowed down further, while in most EU countries GDP growth was more favourable than expected. International confidence indices improved slightly in January but remained at a low level.

In 2022 Q4, economic growth in the European Union, the euro area, China and the United States was 1.8, 1.9, 2.9 and 1.0 percent, respectively year on year. In an international comparison, of the 22 EU countries publishing preliminary data for Q4, annual GDP growth was the highest in Ireland (+15.7 percent) and in Romania (+5.0 percent). Economic performance fell in Lithuania (-0.4 percent) and in Sweden (-0.6 percent). The economy of Germany – Hungary's main trading partner – expanded by 1.1 percent. On a quarter-on-quarter basis the output of nine Member States decreased, with the economy of Poland (-2.4 percent) registering the largest decline. The euro area grew by 0.1 percent, while EU-27 output remained unchanged over a quarter.

Chart 1 Business climate indices in Hungary's export markets



Source: OECD, Ifo

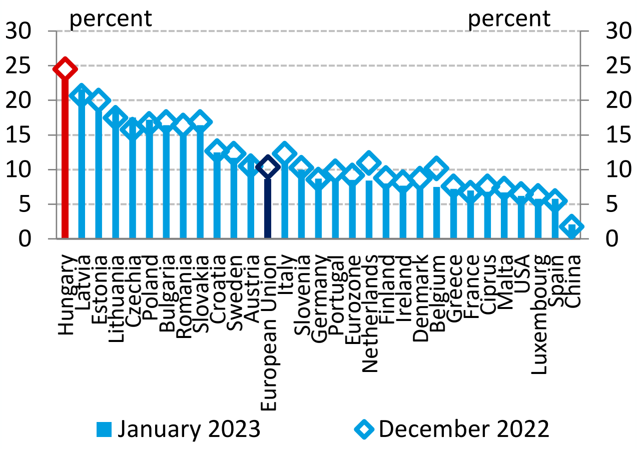
Monthly production indicators show a mixed picture. In December 2022, industrial production in the US grew by 1.6 percent, the lowest since March 2021, and in China it rose by 1.3 percent. In December, the euro area registered a year-on-year decline of 1.7 percent. In December, the volume of retail sales grew by 6 percent in the USA, while fell by 1.8 percent in China and 2.8 percent in the euro area, in year-on-year terms.

In January, forward-looking confidence indicators rose slightly in the euro area, but remained at a low level (Chart 1). Business sentiment and consumer confidence showed a slight improvement in the euro area based on both the Economic Sentiment Indicator (ESI) and the Purchasing Manager's Index (PMI). Compared with the previous month, the US Purchasing Manager Index declined slightly in January, and it is still below the threshold (50 points), while in China it improved by 10.3 points to 52.9.

International labour market trends were unchanged. In January, unemployment rate in the United States was 3.4 percent, while in the euro area it stood at 6.6 percent in December.

Inflation in the United States slightly decreased to 6.4 percent. By contrast, in China, it rose from 1.8 percent in December to 2.1 percent in January.

Chart 2 Developments of inflation in European Union



Note: HICP and CPI rates.
Source: Eurostat

Based on preliminary data, in January inflation in the euro area fell from 9.2 percent to 8.5 percent in annual terms, while core inflation remained at 5.2 percent. The preliminary inflation figure was lower than analysts' expectations of 8.9 percent, while core inflation slightly exceeded the analyst' consensus of 5.1 percent. The rise in HICP inflation was most strongly connected to food prices and energy items in January.

Based on preliminary data from the 27 EU countries, inflation declined or stagnated in 18 countries, while it rose in 9 countries in January. Hungary had the highest inflation rate among the EU countries in January, while the Baltic countries also saw an annual inflation of around 20 percent. In the region, based on the data of the national statistical offices, prices rose by 17.5 percent in the Czech Republic, 17.2 percent in Poland, 15.1 percent in Romania and 14.9 percent in Slovakia year-on-year (Chart 2).

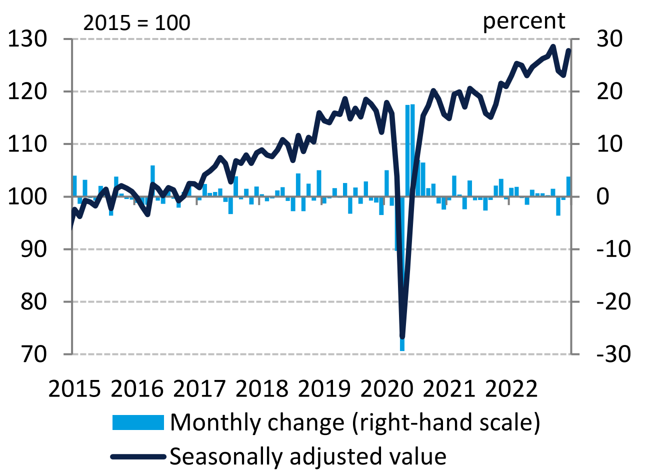
1.2. Real economic developments in Hungary

Following the favourable trends at the beginning of the year, Hungary's GDP growth decelerated to 0.4 percent in Q4, while on a quarter-on-quarter basis a decline of 0.4 percent was observed. Industry and market services were the largest contributors to the year-on-year growth, while agriculture restrained growth. In 2022 as a whole, Hungary's economic performance rose by 4.6 percent, outstripping the EU average. In the last month of 2022, the average number of employees in the 15-74 age group was 4,704,000. In the period of October–December, 15,000 more people worked in Hungary than in the same period last year. The unemployment rate stood at 3.9 percent in December.

1.2.1. Economic growth

In December 2022, industrial production rose by 2.0 percent year on year. Based on the seasonally and calendar adjusted data, the volume of production increased by 3.8 percent on a monthly basis (Chart 3). Production fell in most of the manufacturing subsectors but significantly increased in the automotive industry and battery manufacture. The output of the automotive industry, representing the largest share, increased by 34.5 percent compared to the low base of the previous year. Production of electrical equipment, including battery production and the manufacture of electric motor, rose by 61.6 percent. Following a previous increase, manufacture of computers and electronic products has been falling for two months, registering a decline of 8.1 percent in December. Among the manufacturing subsectors, the volume of chemical substances production (-40.2 percent), petroleum refining (-28.9 percent), metal industry production (22.6 percent), rubber, plastic and non-metal production (-13.6 percent) and wood and paper production (-12.6 percent) declined to the largest degree compared to December last year.

Chart 3 Developments in industrial production



Source: MNB calculation based on HCSO data

In December 2022, the volume of construction output declined by 3.9 percent year on year. The construction of buildings increased by 1.1 percent, while construction of other structures decreased by 12.7 percent, in year-on-year terms. Based on seasonally and working-day adjusted data, construction output fell by 3.7 percent compared to the previous month. The volume of new contracts was down by 35.9 percent from the high base in December 2021. Within that, new contracts for the construction of buildings and of other structures declined by 4.5 percent and by 59.3 percent, respectively, year on year.

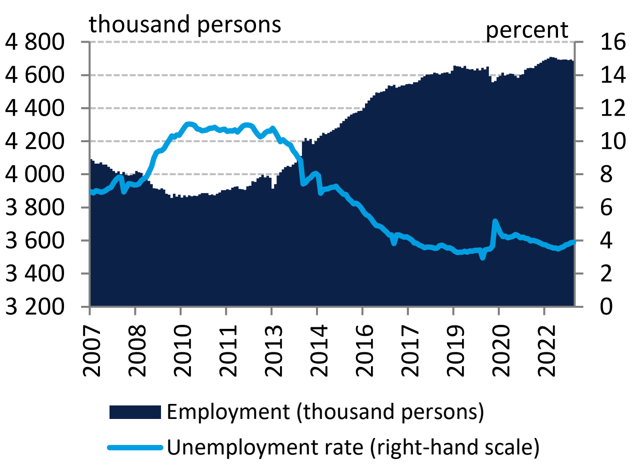
In December 2022, retail sales volume fell by 3.9 percent year on year; while excluding fuel trade, turnover declined by 4.4 percent based on data after adjusting for the calendar effect. In December, turnover fell in almost half of the individual product groups. Retail sales volume in food stores and groceries, representing the largest weight, fell by 8.3 percent. On the other hand, sales of motor vehicle and vehicle parts stores rose by 3 percent, and fuel stations also saw a moderate (+1.3 percent) growth in turnover in December, which was presumably largely attributable to the lifting of the cap on fuel prices.

Based on preliminary data, trade balance showed a deficit of EUR 154 million in December 2022. The balance improved by EUR 204 million, compared to the same period of the previous year. The balance, adjusted for VAT residents, remained negative, with a deficit of EUR 715 million in December. In December, goods exports and imports rose by 12.3 percent and 9.9 percent, respectively, in euro terms, year on year. In November 2022, terms of trade deteriorated by 5.3 percent in an annual comparison, which is primarily contributed by mineral fuels.

In the first month of this year most of the high frequency data declined. Based on online cash register data, real turnover in January declined by 4.5 percent year on year. Air passenger traffic and goods traffic declined further (-7 percent and -9 percent, respectively) according to data received so far. Electricity load data fell by 21 percent. The number of housing market transactions declined by 47 percent, according to data available to date. Cinema attendance and road passenger traffic remained broadly unchanged. Catering turnover rose by almost 30 percent due to the low base registered in the same period of last year. Google searches for the term "unemployment benefit" rose by 21 percent.

1.2.2. Employment

Chart 4 Number of persons employed and the unemployment rate



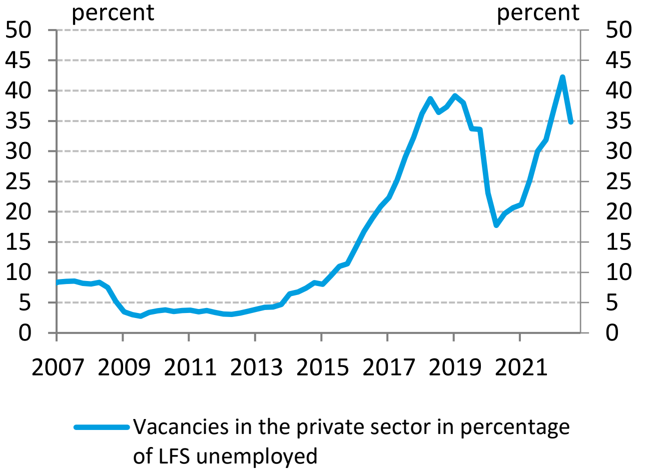
Note: The graph shows seasonally adjusted moving averages.
Source: HCSO

Based on Labour Force Survey (LFS) data, the average number of employed in the 15-74 age group was 4,704,000 in December 2022. In the period of between October and December 2022, the average number of the employed was 4,702,000, exceeding the figure of previous year's corresponding period by 15,000 (Chart 4). In October–December, on average, the number of employed in the primary labour market and of those working abroad rose by 16,000 and 13,000, respectively, while the number of fostered employees fell by 14,000, compared to the same period of the previous year.

In December, the number of the unemployed was 190,000, which exceeded the figure of December 2021 by 11,000 persons; and as a result, the unemployment rate stood at 3.9 percent, overall. Based on seasonally adjusted data, in December the number of the unemployed showed a slight decrease compared to November. Based on the data published by the National Employment Service the number of registered jobseekers in Hungary was 230,000 (-8,000 on an annual basis) in December 2022 and 244,000 (-5,000 on an annual basis) in January 2023. Based on seasonally adjusted data, the number of the registered jobseekers in January 2023 remained unchanged compared to December, and it is still below the number measured in the months before the outbreak of the coronavirus pandemic.

Labour market remains historically tight (Chart 5). In 2022 Q3, unsubsidised available vacancies amounted to 63,000 in the private sector, representing an increase of 8 percent year-on-year and a decrease of 10 percent on the previous quarter. Labour demand declined quarter-on-quarter both in market services and manufacturing. Manufacturing job vacancies fell short of the figure registered in Q2 by 1,400. In 2022 Q3, job vacancies amounted to 37,400 in the services sector, down by 3,300 compared to the previous quarter. Within the services sector, job vacancies in the information and communication sector and in professional and scientific activities declined by 1,400 and 1,000 respectively. Labour demand slightly declined quarter on quarter in tourism. Within the public sector job vacancies remained practically unchanged in healthcare, education and public administration compared to the second quarter.

Chart 5 Developments in labour market tightness indicator



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

1.3. Inflation and wages

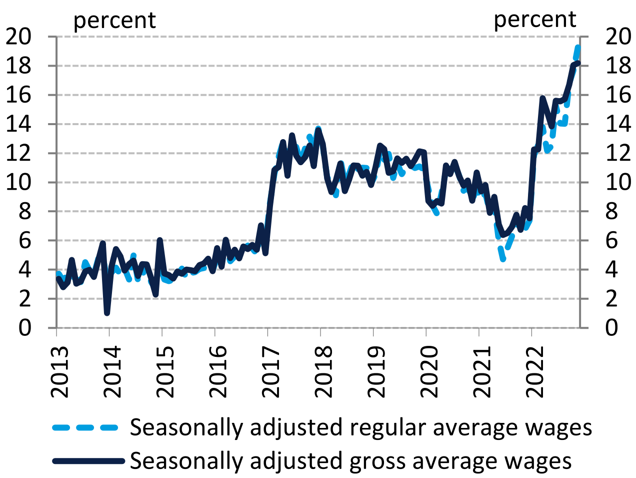
In January 2023, annual inflation was 25.7 percent. Incoming data was within the forecast range of the December Inflation Report. Core inflation stood at 25.4 percent, and core inflation excluding indirect tax effects was 25.3 percent. In annual terms, average regular wages (excluding bonuses) rose by 20.2 percent in the national economy, and by 19.4 percent in the private sector, respectively, in November 2022.

1.3.1. Wages

In November 2022, gross average wages in the private sector rose by 18.7 percent year on year. The degree of bonus payments exceeded the historical average for November. Average regular earnings (excluding bonuses) rose by 20.2 percent in annual terms in the overall economy, and by 19.4 percent in the private sector, respectively.

According to seasonally adjusted data, growth in both gross average wages and regular average wages accelerated in the private sector compared to the previous month (Chart 6). In the private sector wage dynamics in manufacturing outstripped that in market services. Annual wage dynamics were over 10.0 percent in most sectors. In November, based on raw data, wages in manufacturing were higher by 19.8 percent year-on-year. In market services, HCSO registered a growth of 18.6 percent. Gross wages in construction and trade rose by 14.1 percent and 18.0 percent, respectively, in year-on-year terms.

Chart 6 Dynamics of average earnings in the private sector

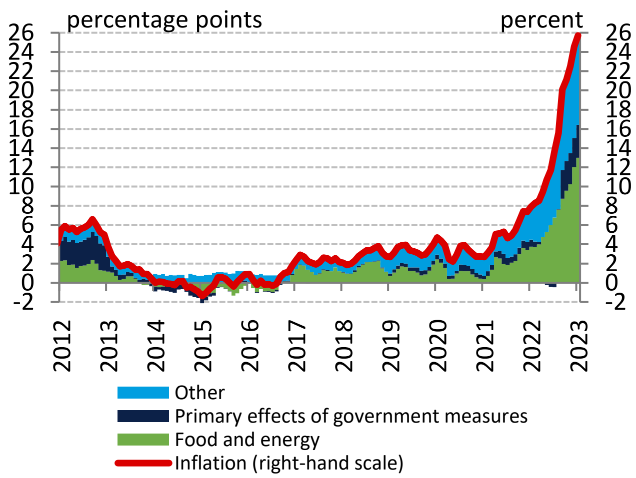


Source: MNB calculation based on HCSO data

1.3.2. Inflation developments

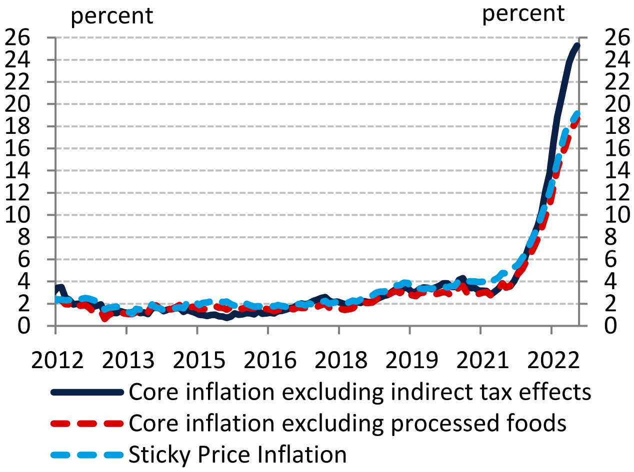
In January 2023, annual inflation was 25.7 percent (Chart 7). **The incoming data are in line with the forecast range communicated in the December Inflation Report. Core inflation stood at 25.4 percent, and core inflation excluding indirect tax effects was 25.3 percent.** Compared to the previous month, inflation increased by 1.2 percentage points, mainly driven by higher fuel prices. On a monthly basis, core inflation increased by 0.6 percentage points. The growth of 0.5 percentage points in core inflation is almost entirely attributable to market services. Market services inflation was 16.6 percent, while the annual increase in industrial goods prices was 19 percent.

Chart 7 Decomposition of inflation



Source: MNB calculation based on HCSO data

Chart 8 Measures of underlying inflation indicators



Note: Core inflation excluding processed food corresponds, with unchanged content, to the former demand sensitive inflation measure.

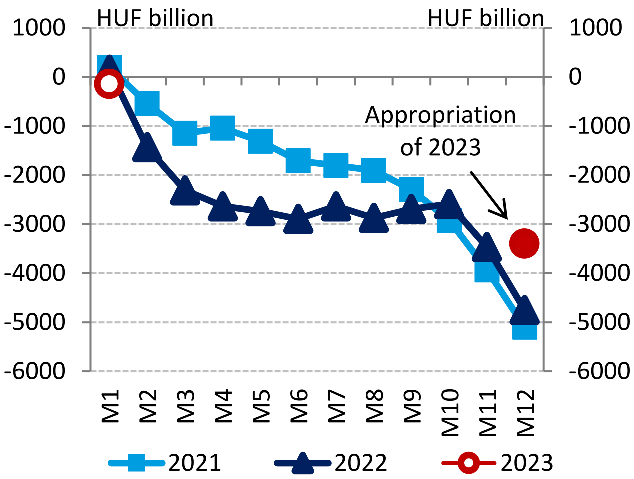
Source: MNB calculation based on HCSO data

The monthly increase in core inflation, which better reflects market developments and excludes processed food prices, was 1.6 percent. Underlying inflation indicators capturing persistent trends, i.e. core inflation excluding processed food and inflation of sticky price products and services, increased compared to the previous month (Chart 8).

1.4. Fiscal developments

The balance of the general government's central sub-sector showed a deficit of HUF 144 billion in January 2023. Monthly revenues and expenditures of the central sub-sector exceeded the figure seen in January 2022 by HUF 434 billion and by roughly HUF 729 billion, respectively.

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



Source: Budget Act of 2023, Hungarian State Treasury

In January 2023, **the balance of the general government's central sub-sector** showed a deficit of HUF 144 billion, which falls short of the HUF 151 billion monthly surplus in January 2022 by HUF 295 billion (Chart 9).

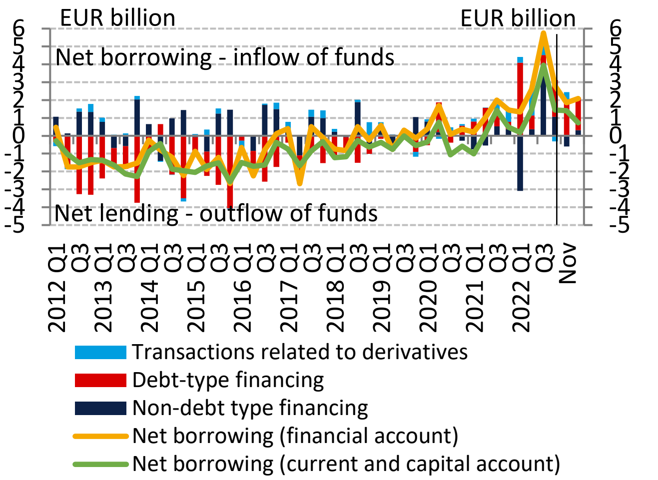
In January, **revenues of the central sub-sector** exceeded the previous year's value by HUF 434 billion. Tax and contribution revenues rose by HUF 403 billion, i.e. by 21 percent year-on-year, mostly due to a significant increase in payments by households and in consumption taxes.

Expenditures exceeded previous year's figure by almost HUF 729 billion. HUF 348 billion of the excess expenditures was caused by to the purchase of an equity stake in Vodafone. An additional increase in expenditures compared to last January was attributable to the fact that based on a Government Decision HUF 173 billion was disbursed from normative and special subsidies to cover energy costs, while net interest expenditures rose by HUF 123 billion.

1.5. External balance developments

In December 2022, the current account deficit was EUR 694 million, while net borrowing amounted to EUR 726 million. According to financial account data, in parallel with the increase in net foreign direct investments net external debt significantly grew.

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). The fundamental development of the debt from an economic viewpoint is not influenced by the conversion between unallocated and bullion balances, thus this effect has been excluded.
Source: MNB

In December 2022, the current account deficit was EUR 694 million, while net borrowing amounted to EUR 726 million (Chart 10). Current account deficit significantly declined compared to previous month, which was primarily attributable to the material improvement in the goods balance. Goods deficit fell short of the figure registered in November by almost EUR 1 billion, which was mostly attributable to the adjustment of the previous high level of imports, with minor contribution by the better energy balance resulting from lower gas price. In December, services balance surplus corresponded to that seen in November, while the monthly income balance deficit slightly increased compared to November. Transfer balance surplus – under unchanged EU transfers – declined to a smaller degree than a year ago.

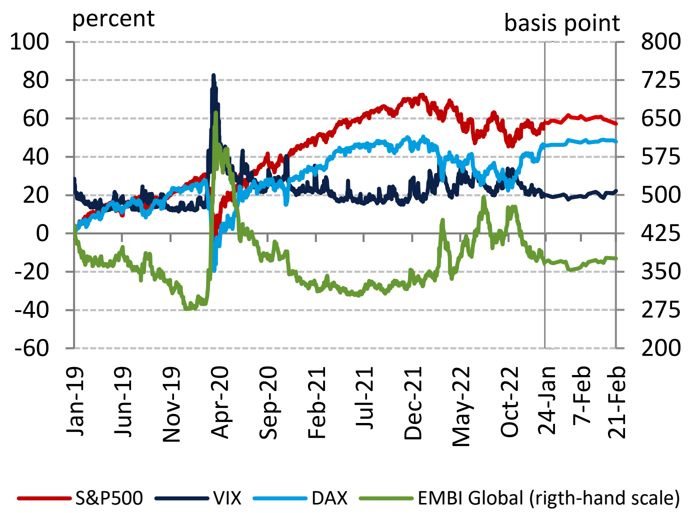
According to financial account data, net external debt rose significantly as net foreign direct investments increased. The rise of some EUR 0.5 billion in net foreign direct investments was primarily linked to reinvested earnings. Net external debt rose by EUR 1.8 billion due to transactions, which was attributable to a substantial rise in the government's indicator, while net external debt of banks and corporations declined.

2. Financial markets

2.1. International financial markets

Since the previous interest rate decision, global investor sentiment has primarily been shaped by expectations for the world's leading central banks' monetary policy, incoming macroeconomic data and the European energy crisis. Long-term yields generally rose in developed markets and in the CEE region. Leading stock indices were mixed.

Chart 11 Developed market equity indices, the VIX index and the EMBI Global Index

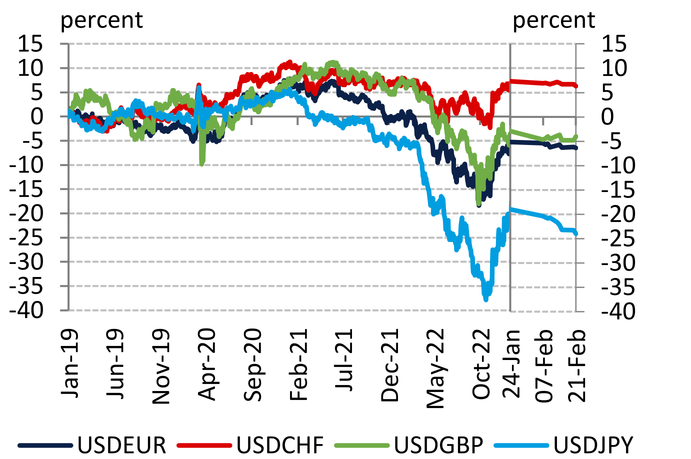


Source: Bloomberg

Financial market sentiment has been volatile since the previous interest rate decision. Of the risk indicators, the VIX index, the key measure of equity market volatility, rose overall compared to the level registered at the previous interest rate decision by 2.2 percentage points to 22.1 percent, while in emerging markets the EMBI Global bond market premium increased slightly by 6 basis points. The MOVE index (measure of the developed bond market volatility) rose by 7 basis points to 120 basis points (Chart 11).

Leading stock indices were mixed. Over the period, both the US S&P and the Dow Jones fell by 0.5 and 1.8 percent, respectively. Out of the leading European stock market indices, the German DAX and the French CAC40 rose by 1.8 and 3.3 percent, respectively. From the Asian indices, the Japanese Nikkei fell by 0.7 percent, while the Shanghai stock market index rose by 0.8 percent compared to the level seen at the previous interest rate decision. Overall, the developed and emerging market MSCI composite indices decreased by 0.6 and 4.2 percent, respectively.

Chart 12 Evolution of developed market FX exchange rates from January 2019

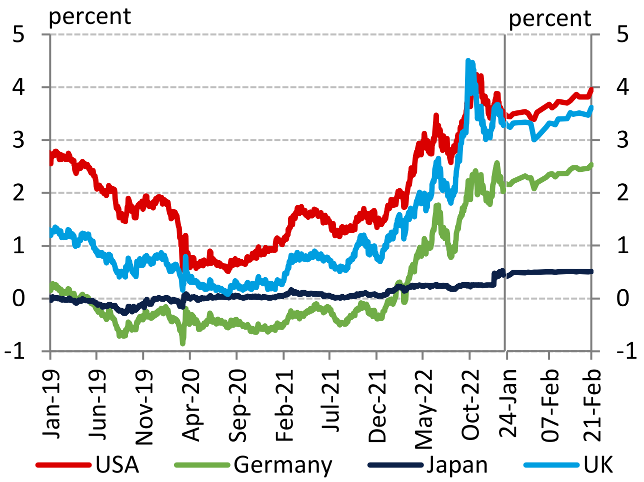


Note: Positive values indicate the strengthening of the variable (second) currency.
Source: Reuters

The dollar appreciated against the major currencies (Chart 12). The dollar exchange rate appreciated against the Japanese yen by 3.6 percent, against the euro by 2.2 percent, against the British pound by 2.0 percent, against the Swiss franc by 0.5 percent and against the Chinese renminbi by 1.6 percent. The euro-dollar exchange rate gradually moved closer to parity during the period under review, and by the end of the period it was close to 1.06.

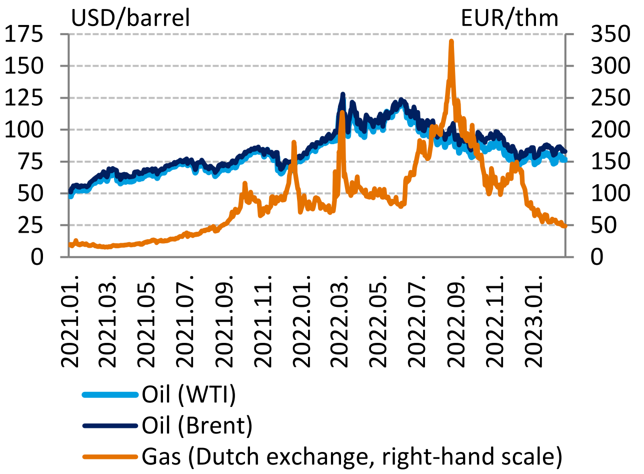
Long-term yields generally rose in developed markets and in the CEE region (Chart 13). The ten-year US and German yield rose by 50 and 37 basis points, respectively, and thus the US yield closed the period at 3.95 percent, while the German one at 2.53 percent. Portuguese and Spanish yields were up by 41 and 42 basis points, and Italian and Greek yields by 18 and 36 basis points,

Chart 13 Yields on developed market long-term bonds



Source: Bloomberg

Chart 14 Developments in oil and gas prices since January 2021



Source: Bloomberg

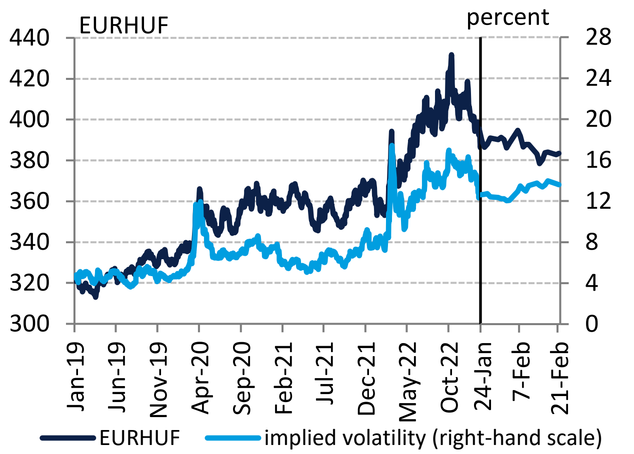
respectively. Yields on 10-year government bonds in the countries of the CEE region also rose: Polish, Romanian and Czech yields were down (sic orig.) by 71, 42 and 52 basis points, respectively, while the Hungarian yields are 141 basis points higher than at the January rate decision.

Since the previous interest rate decision oil prices have decreased: the price of Brent crude oil was down by 2.4 percent to USD 83 per barrel, while the US benchmark WTI oil price fell by 4.7 percent to USD 76 per barrel (Chart 14). **Fall in gas prices continued,** although its rate declined from 40 percent seen in January to 17 percent (Chart 14). As a result, in this declining trend which started at the end of August 2022, gas prices fell to levels last seen at the end of August 2021. Currently, gas storage facilities in Europe are filled up to 65 percent on average and their utilisation was over the average capacity typical for this period of the year, which was also due to milder winter weather in the region and stronger imports of liquefied natural gas. The price of **industrial metals** declined, with the price of copper, zinc and aluminium falling by 3, 8 and 7 percent, respectively. **The Bloomberg commodity price index, covering the entire commodity market, declined by 4.3 percent over the period.**

2.2. Developments in domestic money market indicators

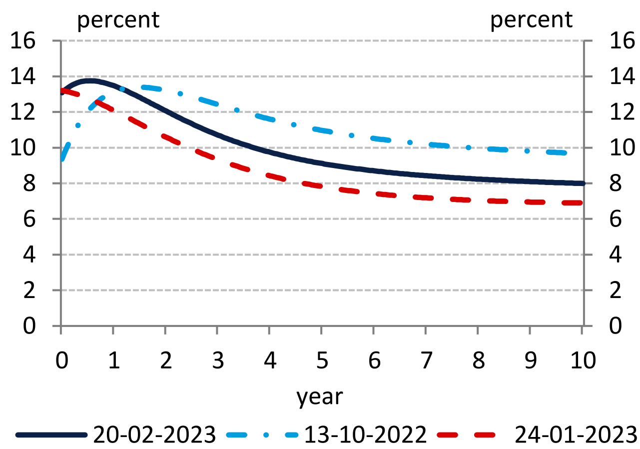
Unlike other exchange rates in the CEE region, the forint has appreciated by 1.1 percent against the euro since the January interest rate decision. The government securities yield curve shifted upwards. The 3-month BUBOR rose by 28 basis points to 16.27 percent.

Chart 15 EUR/HUF exchange rate and the implied volatility of exchange rate expectations



Source: Bloomberg

Chart 16 Shifts in the spot government yield curve



Source: MNB, Reuters

Since the interest rate decision in January, the forint has appreciated against the euro by 1.1 percent (Chart 15). Of the currencies of the CEE region, the Czech koruna appreciated against the euro by 0.6 percent, while the Polish zloty and the Romanian leu essentially remained unchanged against the euro (Chart 18).

The 3-month BUBOR, relevant for monetary policy transmission, rose by 28 basis points to 16.27 percent since the last interest rate decision.

The government securities yield curve shifted upwards (Chart 16)**.** At the 1-year section of the yield curve a rise of 138 basis points was registered, while on the medium and longer maturities yields rose by an average of 140 and 120 basis points, respectively.

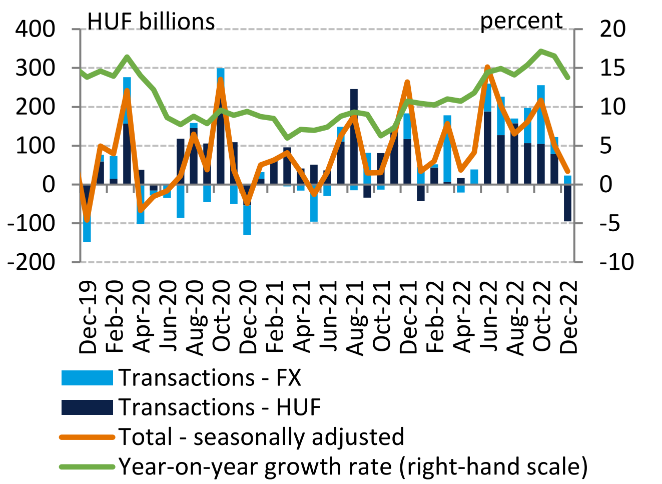
Government bond auctions held by the Government Debt Management Agency since the last interest rate decision were characterised by an adequate demand. At the beginning of the period under review, the Government Debt Management Agency typically accepted higher volume of government bonds than announced, while at the auctions of shorter-term discount Treasury bill auctions the volume of securities sold from time to time were below the offered volume. Average yields mostly moved up both on Treasury bills and on government bonds.

Non-residents' holdings of forint government securities decreased. Non-residents' holdings in forint government securities decreased by HUF 102 billion to HUF 6,570 billion. The market share of forint government securities held by non-residents declined to around 21.4 percent.

3. Trends in lending

Reflecting a fall in forint loans by HUF 95 billion and a rise foreign currency loans by HUF 23 billion, outstanding loans to non-financial corporations fell by HUF 72 billion in December 2022, due in part to the year-end deleveraging of the balance sheet. In December, outstanding borrowing by households increased by HUF 58 billion as a result of disbursements and repayments combined, reducing the annual growth rate to 6.3 percent from 6.4 percent last month.

Chart 17 Net borrowing by non-financial corporations

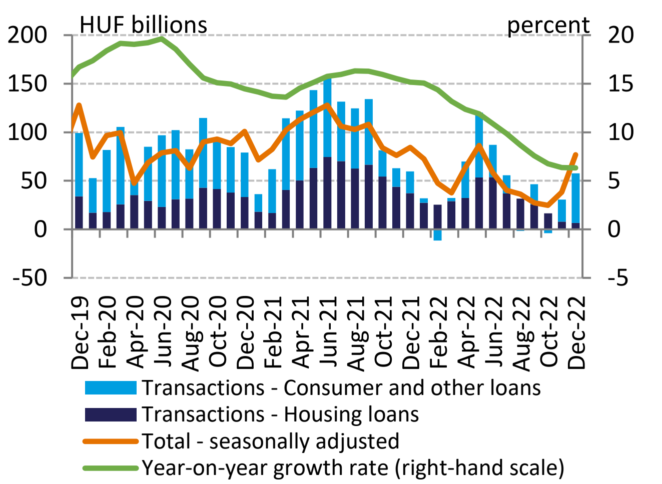


Source: MNB

Reflecting a fall in forint loans by HUF 95 billion and a rise foreign currency loans by HUF 23 billion, outstanding loans to non-financial corporations fell by HUF 72 billion in December 2022, due in part to the year-end deleveraging of the balance sheet. (Chart 17)**.** As a result, the annual growth rate slowed to 13.8 percent from 16.5 percent registered in previous month. Including bond transactions in credit institutions' balance sheet, the annual growth rate in the month was 14.6 percent. Credit institutions extended new loans in the amount of HUF 312 billion, down by 31 percent from the same period last year. The volume of the SME sector's new contracts fell short of the disbursements registered last December by 42 percent, which is partly the result of the volume of new contracts under the Széchenyi Card Programme falling short of expectations.

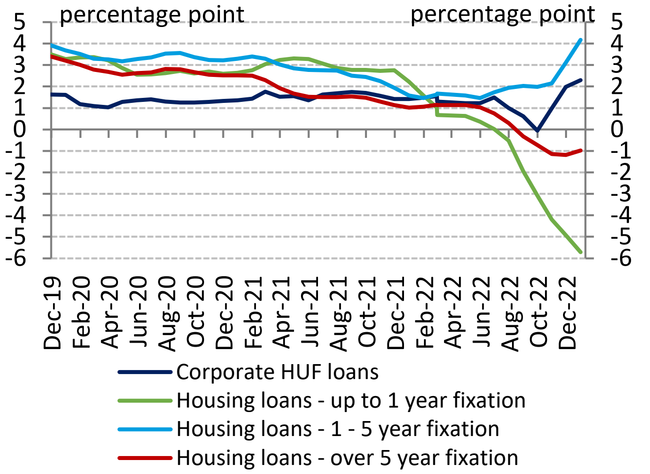
In December, outstanding borrowing by households increased by HUF 58 billion as a result of disbursements and repayments combined, reducing the annual growth rate to 6.3 percent from 6.4 percent last month (Chart 18). Disbursements of new household loans amounted to HUF 167 billion during the month, which was 27 percent lower than in the same period of the previous year. The decline in disbursements impacted almost all loan products, with the exception of prenatal baby support loans, which registered a significant growth due to the demand brought forward connected to the original plans to phase out the scheme. In parallel with the rise in interest rate on loans, average loan amounts of housing loan contracts declined further.

Chart 18 Net borrowing by households



Source: MNB

Chart 19 Developments in 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

In December 2022, the smoothed interest rate spread on forint corporate loans stood at 2.29 percent, following a rise of 0.31 percentage points compared to the previous month. (Chart 19). After a rise of 1.16 percentage point, the average APR-based spread on housing loans with interest rate fixation periods longer than 1 year and up to 5 years increased to 4.17 percentage points in December, while the spread on products with interest rate fixation periods of more than 5 years rose by 0.2 percentage point and stood at -0.98 percentage points at the end of the period under review. The spread is always calculated based on the average reference rate prevailing in the month when the loan was disbursed, and thus due to the delayed nature of the repricing negative spreads may develop temporarily in certain sub-markets.