National Bank of Romania

Inflation Report

May 2022

Year XVIII, No. 68

Inflation Report
May 2022

Year XVIII, No. 68

N O T E S

Some of the data are still provisional and will be updated as appropriate
in the subsequent issues.

The source of statistical data used in charts and tables was mentioned only when
they were provided by other institutions.

National Bank of Romania
25, Lipscani St., 030031 Bucharest – Romania
Phone: 40 21/312 43 75; fax: 40 21/314 97 52

ISSN 1582-2931 (print)
ISSN 1584-0948 (online)
ISSN 1584-0948 (e-Pub)

Foreword

The primary objective of the National Bank of Romania is to ensure and maintain price stability, with monetary policy being implemented under inflation targeting starting August 2005. In this context, active communication of the monetary authority to the public at large plays a key role, and the major tool that the central bank uses to this end is the *Inflation Report*.

Apart from analysing the most recent economic, monetary and financial developments and explaining the rationale and the manner of implementing monetary policy in the previous period, the *Report* provides the National Bank of Romania's quarterly projection on inflation over an eight-quarter horizon, including the associated uncertainties and risks, and an assessment of the recent and future macroeconomic context from the perspective of the monetary policy decision.

By drafting and publishing the *Inflation Report* on a quarterly basis, in accordance with the frequency of the forecasting cycle, the National Bank of Romania aims to provide all those interested with the opportunity of best comprehending its analytical framework and hence the reasons underlying the monetary policy decisions. Securing a transparent and predictable monetary policy is meant to strengthen monetary policy credibility and thus help achieve an effective anchoring of inflation expectations and lower the costs associated with ensuring and maintaining price stability.

The analysis in the *Inflation Report* is based upon the most recent statistical data available at the date of drafting the *Report*, so that the reference periods of indicators herein may vary.

The *Inflation Report* was approved by the NBR Board in its meeting of 10 May 2022 and the cut-off date for the data underlying the macroeconomic projection was 4 May 2022.

All issues of this publication are available in hard copy, as well as on the NBR's website at http://www.bnr.ro.

Contents

Summary

Developments in inflation and its determinants

The annual CPI inflation rate continued its strong upward trend in 2022 Q1, increasing by 1.96 percentage points to reach 10.15 percent in March (from 8.19 percent in December) in a context of global broad-based inflationary pressures. Behind this rise stood mainly the pick-up in production costs as a joint result of the energy crisis that emerged in mid-2021 and the shock wave sent to commodity markets (especially energy and agri-food markets) by the Russia-Ukraine conflict.

Against this background, in January-March 2022, the annual adjusted CORE2 inflation rate went up by 2.4 percentage points to 7.1 percent. Conversely, during this period, exogenous components made a modest contribution to inflation (0.5 percentage points), with the impact of the fast-paced advance in commodity prices being largely mitigated by the extension of the compensation and capping scheme for households' utility bill in February 2022. Compared to the forecast in the February 2022 *Inflation Report,* in March the annual rate of increase of consumer prices was markedly higher (10.2 percent against 8.0 percent). In turn, the average annual inflation rate went up visibly: the indicator calculated based on the national methodology came in at 6.5 percent in March (from 5.1 percent in December 2021), while that calculated based on the Harmonised Index of Consumer Prices (HICP) amounted to 5.6 percent (from 4.1 percent at end-2021), i.e. equal to the level recorded by Latvia, but nevertheless lower than the HICP inflation rates in Lithuania, Estonia, Hungary and Poland.

Mounting pressures from supply-side factors and worsening inflation expectations led to a faster pace of increase of adjusted CORE2 inflation in 2022 Q1, whereas demand conditions in the economy, as shown by the narrow output gap, played a modest part. Production costs reflected significantly higher costs of commodities, transport and utilities. Their pass-through to prices was the fastest for food items, given, on the one hand, the less elastic demand for such goods and, on the other hand, the sector's high exposure to movements in commodity prices. Considering the price-setting behaviour in the Romanian economy, food price hikes are further expected for several months to come. At the same time, labour costs may also face pressures, with the increase in the minimum wage economy-wide being reflected in the wage dynamics in the first part of the year alongside the fast rise in inflation, the influence of which becomes visible in the context of employment contract renegotiation.

Unit labour costs economy-wide saw a new slowdown in their negative annual dynamics in 2021 Q4, to -6.2 percent (from -10.6 percent in the prior quarter). The path of this indicator is, nevertheless, further distorted by the methodological change in the statistics of employed persons[1] at the beginning of the previous year.

1 For Romania, the most significant change refers to the exclusion from the employed persons of households who carry out their activity in agriculture, producing goods exclusively or mostly for self-consumption.

The dynamics of the indicator calculated by excluding this effect[2] show an acceleration from -1.0 percent in Q3 to 4.3 percent, without exceeding, however, the pre-pandemic values. January through February 2022, the annual growth rate of unit wage costs in industry remained high (9.5 percent), similarly to 2021 Q4, amid the advance in wage dynamics.

Monetary policy since the release of the previous *Inflation Report*

In its meeting of 9 February 2022, the NBR Board decided to raise the monetary policy rate to 2.5 percent per annum from 2 percent and to maintain firm control over money market liquidity. Furthermore, the symmetric corridor of interest rates on standing facilities around the monetary policy rate was kept at ±1 percentage point. The annual CPI inflation rate continued to rise above the upper bound of the variation band of the target in December 2021, climbing to 8.19 percent from 7.8 percent in November and 6.29 percent in September. The pick-up in the annual CPI inflation rate during 2021 Q4 was mainly caused, this time again, by exogenous CPI components, particularly by the hikes in natural gas and electricity prices, as well as in fuel prices – primarily on account of the non-petrol-diesel subgroup –, to which added more modest influences from VFE prices and administered prices. In its turn, the annual adjusted CORE2 inflation rate followed a slightly higher upward path in 2021 Q4, reaching 4.7 percent in December from 3.6 percent in September. Its dynamics further reflected the effects of the rise in agri-food commodity prices and energy and transport costs, as well as the influences of persistent bottlenecks in production and supply chains, compounded by increasingly higher short-term inflation expectations and the large share of imported goods in the CPI basket. The latest forecast, which is based on the available data and the regulations in force, showed a considerable worsening of the short-term outlook for inflation, under the strong impact of supply-side shocks, mainly of energy prices.

The main uncertainties and risks to the inflation outlook stemmed from the fiscal policy stance, given the coordinates of the budget programme aiming at the progress in fiscal consolidation in line with commitments under the excessive deficit procedure, yet in a challenging economic and social environment domestically and globally. Another relevant risk factor remained the evolution of the pandemic, amid the ascending phase of the infection wave triggered by the Omicron variant of the coronavirus. Moreover, a major source of uncertainties and risks continued to be the absorption of EU funds, especially those under the Next Generation EU programme, where disbursements are conditional on the strict fulfilment of milestones and targets.

Subsequently, the annual CPI inflation rate continued to rise gradually in the first two months of 2022, climbing to 8.35 percent in January and to 8.53 percent in February. This time round, exogenous CPI components had a disinflationary contribution overall, following the slower pace of increase of electricity and natural gas prices, amid a base effect and extended price capping schemes, which outweighed considerably the influences of the relatively more pronounced hike

[2] Indicator calculated based on data on employed persons in *Household Labour Force Survey* (LFS), with the data series being recalculated based on the new methodology until 2009.

in fuel prices, VFE prices and administered prices. The annual adjusted CORE2 inflation rate followed a faster-than-expected upward path in the first two months of 2022 Q1, going up to 5.2 percent in January and to 5.9 percent in February, from 4.7 percent in December 2021, mainly as a result of the step-up in broad-based increases in processed food prices. The evolution of this component continued to reflect the surge in agri-food commodity prices and energy and transport costs, alongside the influences of persistent bottlenecks in production and supply chains. They were compounded by increasingly higher short-term inflation expectations, the resilience of demand in certain segments, as well as by the significant share of food items and imported goods in the CPI basket. Economic activity continued to weaken more than expected in 2021 Q4, falling by 0.1 percent versus the previous quarter, but solely on the back of the marked deterioration in the performance of agriculture. Developments made it likely for excess aggregate demand to remain low during this period, in line with earlier forecasts, given *inter alia* the implications of the revision of statistical data on economic growth in 2020 and 2021. At the same time, annual GDP dynamics saw in 2021 Q4 a markedly stronger-than-anticipated decline, i.e. to 2.4 percent from 6.9 percent in Q3, but almost entirely on the back of the contribution of the change in inventories falling to a negative value. Household consumption made only a very slightly lower positive contribution – which thus remained particularly elevated –, while gross fixed capital formation recorded a somewhat improved contribution. In turn, net exports made a slightly lower negative contribution to annual GDP dynamics, as the change in imports of goods and services decreased faster than that of exports. Against this background, the annual increase in the negative trade balance decelerated considerably as against Q3, due also to the narrowing of the unfavourable differential between the dynamics of import prices and those of export prices. Conversely, the current account deficit widened in annual terms at a significantly swifter pace, under the impact of the marked worsening of the secondary income balance, on account of a decrease in inflows of EU funds to the current account as compared to the same year-earlier period.

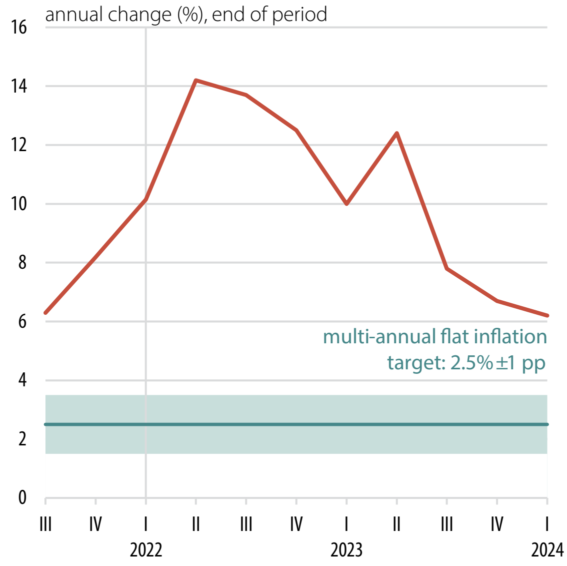
In the NBR Board meeting of 5 April 2022, the latest assessments revealed the outlook for the annual CPI inflation rate to rise somewhat more steeply in the coming months than anticipated previously, under the impact of supply-side shocks. Behind the renewed worsening of the near-term inflation outlook stood the much higher increases expected for fuel prices, and especially for processed food prices, mainly due to the stronger advance in crude oil and agri-food commodity prices, amid Russia's invasion of Ukraine and the international sanctions in place. The inflationary effects thus exerted were foreseen to prevail in the near term over the substantial disinflationary impact presumably generated by the one-year extension of capping schemes for electricity and natural gas prices for households. However, significant uncertainties were still associated with how the impact of these schemes was to be assessed and included in the CPI calculation.

Based on the assessments and data available at that time, as well as in light of the very elevated uncertainty, the NBR Board decided to increase the monetary policy rate to 3 percent per annum from 2.50 percent per annum. Moreover, it decided to raise the lending (Lombard) facility rate to 4 percent per annum from 3.50 percent per annum and the deposit facility rate to 2 percent per annum from 1.50 percent per annum, as well as to maintain firm control over money market liquidity. In addition, the NBR Board underlined its aim to anchor inflation expectations over the medium term, as well as to foster saving through higher bank rates, so as to bring back the annual inflation rate in line with the 2.5 percent ±1 percentage point flat target on a lasting basis, in a manner conducive to achieving sustainable economic growth in the context of the fiscal consolidation process.

Inflation outlook

Year 2021 saw the ongoing recovery of economic activity both in Romania and worldwide. The February 2022 *Inflation Report* highlighted the outlook for a strengthening of economic recovery in the course of the year, although the process continued to be burdened by risks and uncertainties. They were associated with the evolution of the health situation, on the one hand, and the movements in commodity prices, on the other hand, given the still elevated tensions in the production and distribution chains. Very shortly after the publication of the *Inflation Report*, Russia's invasion of Ukraine, through its far-reaching geopolitical and economic consequences, led to major reassessments of the economic setting. Against this background, macroeconomic projections are inevitably surrounded by multiple risks and, above all, uncertainties, most of which transcend the usual realm of economic analysis (evolution of the armed conflict, geopolitical context, sanctions). The war in Ukraine has fuelled the supply-side bottlenecks already affecting several key global markets, in particular commodity markets, which were gradually resorbing the impact of the COVID-19 pandemic at the time the conflict broke out. In this environment, the global supply-demand imbalance for many commodities and finished goods has rebounded since the end of February. This leads to a resurgence of inflationary pressures, on the one hand, and to a slowdown in economic activity, on the other hand. The baseline scenario of the projection assumes that the war in Ukraine will have the greatest economic impact this year, which will gradually abate in 2023 and 2024. Conversely, the sanctions imposed on Russia and other countries that encourage or support the military aggression, as well as the responses from the authorities of these states, will remain in place until 2024 at least. In this context, the path of the annual inflation rate in the updated baseline scenario was again revised substantially upwards. The intensity of inflationary pressures induced primarily by the armed conflict will be stronger in the months ahead, so that, apart from the energy component (significantly influenced by capping measures), the monthly growth rate of the CPI will embark on a gradually declining path over the forecast interval. However, in light of its manner of calculation, the annual CPI inflation rate will reflect these pressures over a 12-month period. A new substantial leap in the annual CPI inflation rate is foreseen for April 2023, when the extension of electricity and natural

Chart 1. Inflation forecast



Source: NIS, NBR projection

gas price capping schemes expires. Although the realignment of these prices to those prevailing in the markets is expected mainly for April 2023, the upward impact on the annual CPI inflation rate will also persist over a 12-month period until the end of 2024 Q1, the current forecast horizon. As a result of the war in Ukraine, the large hikes in the prices of energy and other commodities (especially agri-food items) as well as the escalation to unusually high levels of uncertainty economy-wide are likely to worsen the prospects for economic activity, especially in the short term.

Romania's trade and financial exposure to Russia and Ukraine from bilateral relations is low, and hence the economic impact via direct channels is quite subdued. However, more substantial effects will propagate via a number of indirect channels. For example, Russia and Ukraine's large shares of global production of energy, food and certain metals have already caused widespread disruptions in international trade. Against this background, the flagging demand from external partners, the escalation of uncertainty and its impact on economic agents' consumption and investment decisions, as well as the broad-based tightening of financing conditions, will likely entail a near-stagnation of Romania's economy in 2022 Q2. An economic recovery in the latter half of the year is foreseeable, assuming the start of a de-escalation of the warfare. Yet, the recovery will only be gradual. Under the circumstances, annual GDP dynamics were once again revised downwards, in particular for 2022 and to a smaller extent for 2023. In turn, the positive output gap witnessed a new decline anticipated to continue in the medium term, with varying-degree contributions coming from the contractionary effects of the war in Ukraine, the normalisation of monetary policy and the ongoing fiscal consolidation process.

Over the medium term, the largest contribution to economic growth will further come from household consumption, yet in the short term its dynamics will slow down compared to the projection in the previous *Report*. Household consumption will be fuelled by the increase in social spending in the first part of this year, which targeted categories of households with a higher propensity for consumption, and from 1 April 2022 to 31 March 2023, by the extension of electricity and natural gas price capping schemes. Conversely, in the near run, the labour market will at least partly experience a slowdown in economic activity, whereas in the medium term an easing of constraints induced by the war in Ukraine could spur a more substantial recovery, thus also enhancing the favourable developments in household consumption.

Over the medium term, a boost to gross fixed capital formation continues to be highly plausible as a result of Romania's starting as early as this year to absorb funds under the Next Generation EU programme, which comes with fairly large allocations to finance structural reforms as well. In the near term, however, the extremely high uncertainty induced by the armed conflict on Romania's border (geopolitical tensions, energy supply issues, persistent warfare, possible new sanctions imposed on Russia) will cause this component to post considerably slower dynamics, difficult to offset even through a potential increase in public investment expenditures. Assuming a relatively brisk de-escalation of military tensions, the outlook for the growth rate of gross fixed capital formation to exceed that of household consumption starting next year is reconfirmed. This would restore the solid contribution of this component to GDP growth and to increasing the economy's potential over the medium term.

The international sanctions on trade and financial transactions with Russia, as well as the widespread bottlenecks in global supply chains will probably dampen the international trade and, implicitly, Romania's imports volume in 2022. Conversely, against the backdrop of mounting price hikes, in some cases unprecedented, across a wide range of energy and non-energy commodities, a substantial increase in import value is highly likely. At the same time, the role played by Russia and Ukraine in the global production of certain metals and subcomponents, as well as the constraints still affecting transport capacities, will continue to weigh on some sectors (e.g. the automotive industry) with a traditionally positive and significant contribution to the dynamics of Romania's exports. Against this background, the current account deficit-to-GDP ratio in 2022 could exceed, albeit not significantly, its year-ago level. Over the medium term, a resumption of the external deficit adjustment is strictly conditional on the fading away of global supply chain bottlenecks induced by the war in Ukraine. Additionally, a more significant correction of the current account deficit will also hinge on the progress of fiscal consolidation, the pace of recovery of trading partners' economic activity and the tackling of the persistent structural issues of the economy as soon as possible.

Even before the outbreak of the war in Ukraine, a heftier hike in prices was visible compared to the path projected in the February 2022 *Inflation Report*. In fact, these developments confirmed the materialisation of some risk factors mentioned in previous *Reports*, especially the possibility that synchronised global supply shocks may spur the pass-through of production cost increases into final prices. In this context, more pronounced inflationary pressures have already been visible and are expected to grow, as a result of the Russia-Ukraine war, also in the period ahead in the case of the annual adjusted CORE2 inflation rate, especially the processed food component. At the same time, the future dynamics of electricity and natural gas prices are marked by swings following the extension of the electricity and gas price capping scheme, which will also affect the path of the annual headline inflation rate.

In the baseline scenario, the annual CPI inflation rate was revised to 12.5 percent for December 2022 (compared to 9.6 percent in the February 2022 *Inflation Report*), after a peak expected during Q2. For December 2023, the projection features a value of 6.7 percent (against 3.2 percent in the February 2022 *Inflation Report*) amid stronger inflationary pressures from all basket subcomponents than in the previous *Report*. On this horizon, the most significant revision refers to the "electricity and natural gas" component following the extension of the capping scheme by the authorities, thereby mitigating its April 2022 inflationary peak, yet generating a further rise in April 2023, with high values persisting until the end of the forecast interval, i.e. 2024 Q1. As for the annual adjusted CORE2 inflation rate, compared to the previous *Inflation Report*, the new forecast was revised upwards by 4.2 percentage points for end-2022 and by 1 percentage point for end-2023. Against the backdrop of synchronised supply-side shocks, pressures from imported goods prices were revised to higher values, partly offset by domestic aggregate demand pressures, whose level and dynamics subsided from the previous *Report*.

The NBR's recent monetary policy stance was shaped in a prudent manner, in order to bring the annual inflation rate back in line with the flat target of 2.5 percent

±1 percentage point and keep it there over the medium term, *inter alia* via the anchoring of inflation expectations over the longer time horizon, in a manner conducive to achieving sustainable economic growth in the context of the fiscal consolidation process, while safeguarding financial stability.

Although inflationary risks associated with the price developments of many commodities have already materialised as a result of the war in Ukraine, leading to a substantial reconfiguration of the baseline scenario coordinates, there is still a large number of risks surrounding the outlook for the economy, with potentially divergent implications for key macroeconomic variables. Some of these factors will rather have medium- and long-term effects on global economy. For example, there is an emerging risk of a possibly lasting fragmentation of global economy and thus of blocs to be formed on distinct, geopolitical and even technological criteria – a risk that may rise if the current list of economic and financial sanctions is extended. The main threat, however, is that the war in Ukraine may delay the post-pandemic recovery of the economy, the duration and magnitude of this process being essential from the viewpoint of achieving a sustainable economic rebound. A slow pace of this process will cause the strains in global production and distribution chains to persist and even grow, will fuel uncertainty to levels that could heftily depress consumption and investment, or will entail a further upward spiral in commodity prices. Ultimately, these factors could lead to the protraction and even acceleration of inflationary pressures in the economy, together with a contraction of economic activity that would cancel out the progress made in recent quarters.

In order to counter the adverse effects of rising commodity prices on the economy, both national and cross-border authorities could decide to continue the existing support schemes or, where appropriate, introduce new, more comprehensive ones. With the information available at this moment, it is difficult to assess the degree of persistence of adverse shocks over the medium term and implicitly to estimate the possible duration of the support packages and their final configuration. In this context, assuming mostly government-funded support packages, the fiscal and income policy conduct is still surrounded by a number of risks, as the implementation of extended social protection measures could be at odds with the need to continue at a firm pace the correction of the government deficit due for completion in 2024.

As for Romania, which benefits from quite generous EU funds allocations, absorbing as large volumes as possible, especially investment funds under the Next Generation EU programme, could act as a buffer for adverse shocks. Specifically, via their favourable impact on the macroeconomic framework, absorbing these funds could make fiscal consolidation easier. In light of kick-starting the process of monetary policy normalisation at global level, attracting EU funds will imply far lower financing costs than the rising ones in financial markets. Last but not least, in the face of the adverse supply-side shock triggered by the broad-based increase in commodity prices, local firms should seek to further streamline production processes, as part of the financing for these purposes may also come from EU investment funds. Despite every potential benefit, Romania's track record in EU funds absorption, alongside sterner access criteria for some of the programmes, conditional on fulfilling strict milestones and targets, poses a number of risks to the smooth running and completion of this process by 2026.

Future developments in the labour market remain important as a risk factor, although they will largely reflect both direct and indirect effects of the war in Ukraine. Specifically, the broad-based price hikes induced also in this context will continue to erode households' purchasing power and could, in the period ahead, put upward pressure on wages, albeit varying, in terms of magnitude and accommodation potential, across economic sectors. In addition, over the medium term, skilled workforce shortages could be exacerbated, especially in the sectors shifting to a green economy and a high level of digitalisation (segments that look set to be boosted by significant EU funds allocations).

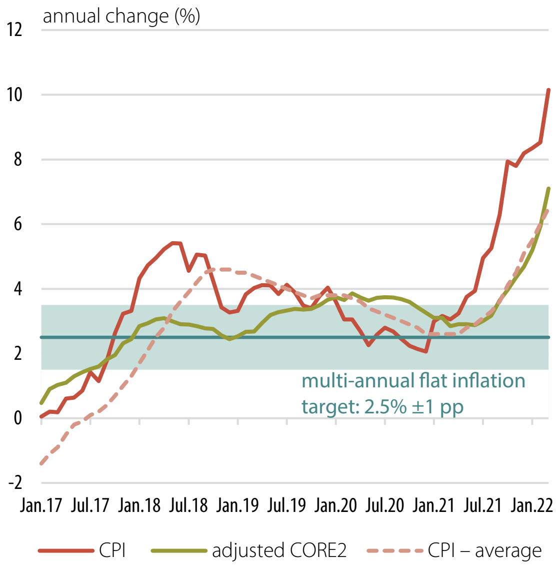
Monetary policy decision

Given the considerable worsening of the inflation outlook over the entire forecast horizon, under the impact of global supply-side shocks, augmented and prolonged by the war in Ukraine and the ensuing sanctions, as well as the need to anchor inflation expectations over the medium term and to foster saving through higher bank deposit rates, so as to bring back the annual inflation rate in line with the 2.5 percent ±1 percentage point flat target on a lasting basis, the NBR Board decided in its meeting on 10 May 2022 to increase the monetary policy rate by 0.75 percentage points to 3.75 percent. Moreover, it decided to raise the lending (Lombard) facility rate by 0.75 percentage points to 4.75 percent and the deposit facility rate by 0.75 percentage points to 2.75 percent, as well as to maintain firm control over money market liquidity. Furthermore, the NBR Board decided to keep the existing levels of minimum reserve requirement ratios on both leu- and foreign currency-denominated liabilities of credit institutions.

1. Inflation developments

The annual CPI inflation rate continued on a steep upward trend in 2022 Q1, advancing by 1.96 percentage points to 10.15 percent in March, from 8.19 percent in December. This time, at the forefront of these unfavourable developments was the adjusted CORE2 inflation, which increased in January-March 2022 by 2.4 percentage points to 7.1 percent. This was mainly attributable to the hike in production costs, as a combined result of the energy crisis triggered in mid-2021 and the shock wave generated by the Russia-Ukraine war on the commodities markets (primarily energy and agri-food). To this added the significant worsening of inflation expectations, while the progressive erosion of purchasing power further undermined consumer demand. Exogenous components made a modest contribution to inflation in the first months of the year (0.5 percentage points), the impact of the fast rise in commodity prices being largely offset at the level of CPI inflation by the extension, in February 2022, of the scheme to compensate and cap households' utility bills (Chart 1.1).

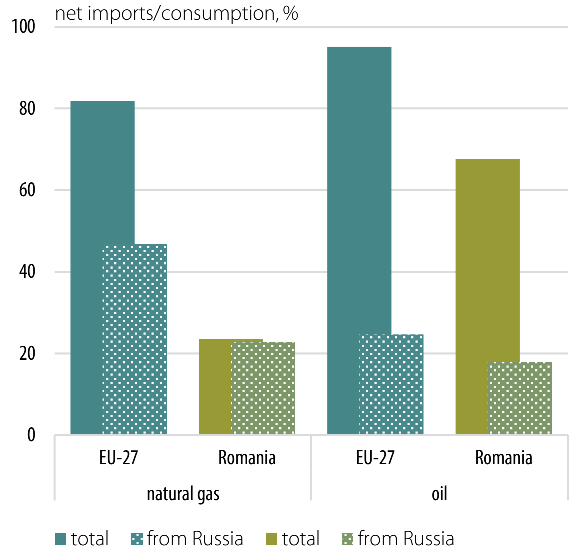
Chart 1.1. Inflation developments



Source: NIS, NBR

Following the peaks reached at end-2021, electricity and natural gas prices declined slightly in the first months of 2022, amid the shift towards alternative energy sources (liquefied natural gas and coal) and a warm winter in the entire continent. The trend reversed with the invasion of Ukraine, the prices on European energy markets reaching historical highs in early March; this underlines Russia's central role in ensuring the energy consumption of European countries and the need for quickly reconfiguring this market in order to diversify sources (Chart 1.2). The oil price stayed on an upward path over the whole period reviewed, initially due to the fading-out of concerns about the economic consequences of the spread of the Omicron strain, and then amid the prospective limitation of the access for the Russian output to the global market; this decision was announced at EU level at the beginning of May. Although the measures taken so far within the EU do not include an embargo on natural gas and oil imports (which led to significant downward corrections of prices in April), the possibility of introducing such sanctions will maintain energy commodity prices at elevated levels, at least until the conflict is settled. In March, electricity and natural gas prices were five times and seven times, respectively, higher compared to the same year-ago period, and more than 70 percent higher in the case of Brent oil prices (Chart 1.3).

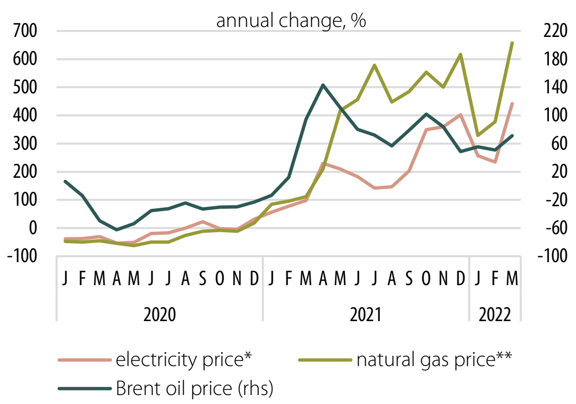
Chart 1.2. Reliance on imports in 2021



Source: Eurostat, NBR calculations and estimates

This trend was visible in the dynamics of fuel consumer prices, the annual inflation rate in this segment climbing to 34.2 percent in March. Contributions in the same direction were made by the relatively large appreciation of the US dollar, given its status as a safe-haven currency, the indexing of the excise duty as of 1 January, and households' panic buying at the beginning of March due to the war in Ukraine. In addition, the high reliance on Russia regarding domestic consumption of diesel and the supply constraints created by the conflict[3] boosted price hikes in this segment, the differential relative to petrol widening considerably. In 2022 Q1, electricity and natural gas benefited from the extension of the support scheme for households as of 1 February 2022, by reducing the caps on final prices and by easing eligibility criteria on households' consumption limits for February-March. In the absence of support schemes, the annual CPI inflation rate in 2022 Q1 is estimated to have been higher by more than 6 percentage points[4] than the actual inflation rate, solely due to the direct impact of prices in end-user bills (Chart 1.4).

Chart 1.3. Energy commodity prices on EU markets

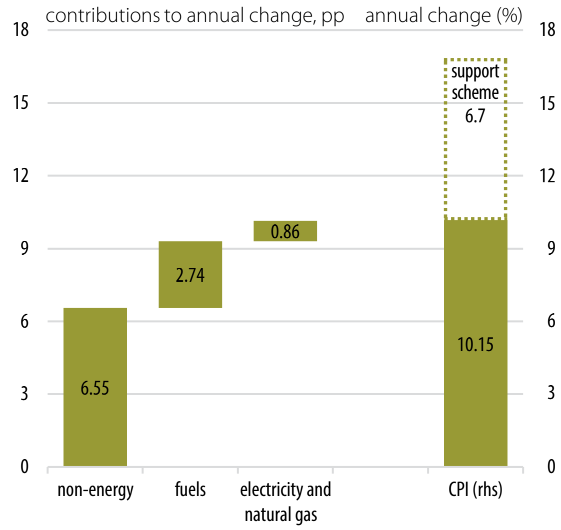


*) calculated as average spot prices on the markets in Germany, France and the Netherlands (the most liquid markets in Europe)

**) the benchmark index in the European market provided by the Title Transfer Facility (TTF) – the virtual trading point for natural gas in Rotterdam

Source: Bloomberg, NBR calculations

Chart 1.4. Contribution of energy and the support scheme to CPI inflation – March 2022



Source: NIS, NBR calculations and estimates

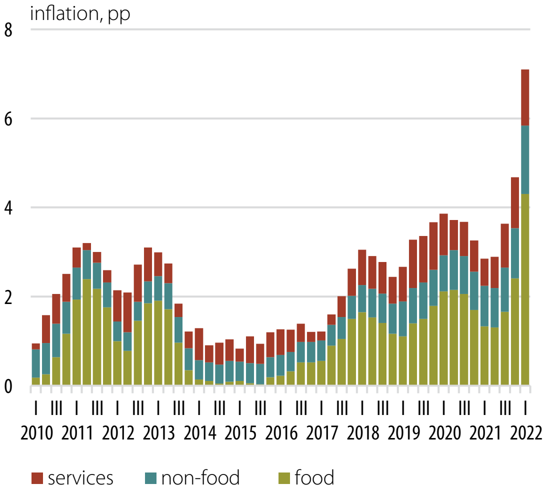
The energy shock passed through quickly into agri-food prices, via transportation, fertiliser and animal feed costs as transmission channels. The armed aggression in Ukraine additionally fuelled agricultural prices (the annual dynamics of FAO food price

3 Although refineries in Russia continue to supply fuels in Europe, some transport companies, banks and intermediaries are reluctant to engage in transactions with energy products of this origin (self-imposed sanctions), prompting Russian producers to cut production.

4 This effect will decrease slightly as of April, the extension of the scheme for one year until March 2023 bringing about a new revision of the main provisions, which will be more restrictive this time.

Chart 1.5. Adjusted CORE2 inflation components

contributions to the annual change in adjusted CORE2 inflation, pp



Note: Net of the direct effect of VAT rate changes.

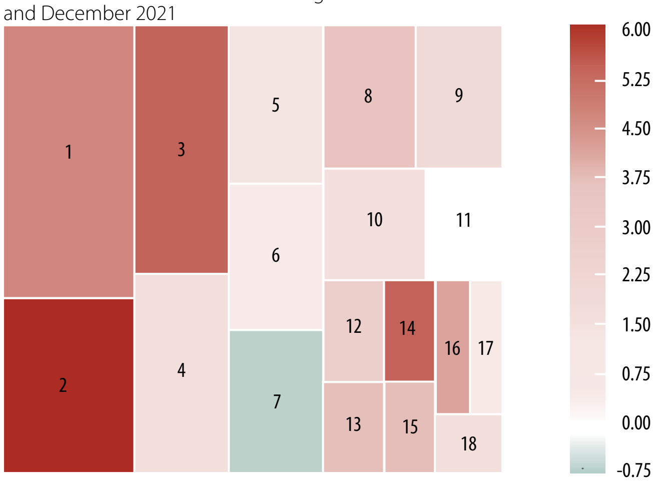
Source: NIS, NBR calculations

index increased to 33.6 percent in March), given that the warring countries are important exporters of such commodities, and the combination of trade sanctions and poor crops in war areas will lead to weaker supply worldwide this year. The escalating conflict has also had effects on the prices of other goods used for industrial purposes, Russia and Ukraine holding significant shares in global exports of palladium, platinum, aluminium, nickel, copper, neon, argon or wood; the tightening of those markets also influences consumer goods industries (motor vehicles, household appliances, furniture).

Amid heightened pressure from supply-side factors and the deterioration in inflation expectations, adjusted CORE2 inflation picked up in 2022 Q1, its annual rate reaching 7.1 percent in March (from 4.7 percent in December), demand conditions in the economy playing a minor part in this evolution, given the small positive output gap (Chart 1.5). Turning to production costs, expenses for commodities, transportation and utilities witnessed significant increases. In-house estimates show that, since the onset of the energy shock, namely from July 2021 to March 2022, this led, via the indirect channel of companies' production costs, to a rise of at least 2 percentage points in core inflation, the calculations based on historical data series most likely underestimating this impact, given the unprecedented magnitude of the shock[5].

Chart 1.6. Price developments for the main items in the adjusted CORE2 inflation basket

difference between the annual changes in March 2022 and December 2021



1. Meat and meat products
2. Milling and bakery products
3. Milk and dairy products
4. Clothing
5. Household appliances and furniture
6. Footwear
7. Telephony services
8. Cultural and sporting products
9. Hygiene and cosmetic products
10. Chemicals
11. TV subscriptions
12. Healthcare
13. Sugar and confectionery
14. Fish and canned fish
15. Hygiene and cosmetic services
16. Restaurants, cafés, canteens
17. Rent
18. Cinemas, theatres, museums

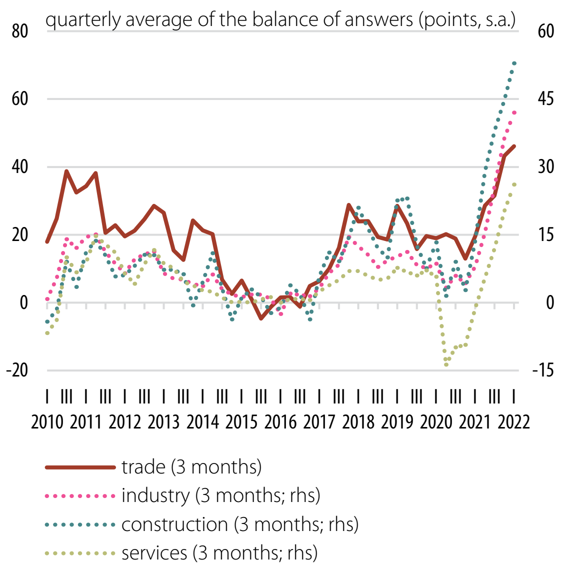
Note: The chart shows items holding about 85 percent of the core inflation basket in 2022. A rectangular area is proportional to the item's share in adjusted CORE2, while the colour intensity is proportional to the difference between the annual changes in March 2022 and December 2021.

Source: NIS, NBR calculations

[5] For methodological details, see Box entitled "The rise in energy prices: its impact on inflation rate and economic activity", published in the November 2021 *Inflation Report*.

Labour costs may also face pressures, with the hike in the minimum wage economy-wide being reflected in the wage dynamics in the first part of the year alongside the fast rise in inflation, the influence of which becomes visible in the context of employment contract renegotiation. Pressures passed through the fastest and strongest into the food segment (annual growth rate of 10.5 percent in March), in the context of this sector's less elastic demand and much higher exposure (compared to other business sectors) to the developments in costs of commodities, transportation and utilities. Specifically, while economy-wide these account, on average, for approximately 24 percent of turnover[6], in the food industry the share varies between 40 percent (in the manufacture of bakery products) and 70 percent (in the manufacture of oils and fats). While food companies adjust prices the most frequently (relative to those of other goods and services included in core inflation), only 21 percent of prices change, on average, in a given month[7], so that economic agents incorporate the response to shocks in selling prices throughout several months. The breakdown shows that the main inflationary contributions came, in the first three months of the year, from bakery products, meat products and dairy, yet the prices of sugar or oil also continue to post brisk, two-digit annual dynamics (Chart 1.6). The contribution of the food sub-component to the rise in core inflation in 2022 Q1 (1.7 percentage points) was enhanced by the increase in the related weighting coefficient (+3.5 percentage points to 41 percent), the reference being 2020, when the pandemic context imposed substantial changes to consumer behaviour. Although non-food items and services included in core inflation witnessed more moderate price hikes in the period under review, their annual dynamics outpaced those prevailing in the past 10 years as well (4.3 percent and 5.5 percent respectively in March 2022).

Chart 1.7. Expectations on price developments



Source: EC-DG ECFIN

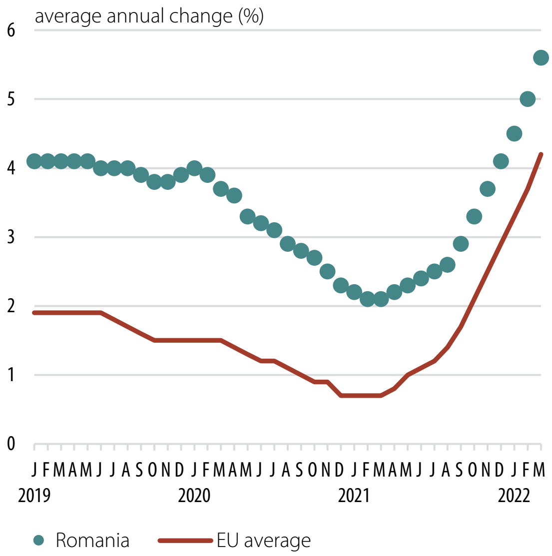
Inflation expectations are further an important factor in the current evolution of the inflation rate, more and more economic agents in all sectors of the economy expecting price hikes in the coming period (Chart 1.7). In addition, financial analysts' expectations on the annual CPI inflation rate one and two years ahead increased significantly, exceeding the upper bound of the variation band of the flat target over both time horizons.

The average annual inflation rate went up markedly in 2022 Q1: the indicator calculated based on the national methodology reached 6.5 percent in March (versus 5.1 percent in December 2021), while the HICP-based indicator stood at 5.6 percent

6 According to balance sheet data for 2020.

7 The result is based on an extensive data set on the prices of goods and services in the consumer basket, for 2015-2020. However, in the period under review, marked by multiple strong shocks, the behaviour may have been different from that shown by analysing historical data series.

Chart 1.8. Average annual HICP



Source: Eurostat

(versus 4.1 percent at end-2021), equal to the value in Latvia, but below those in Lithuania, Estonia, Hungary and Poland (Chart 1.8).

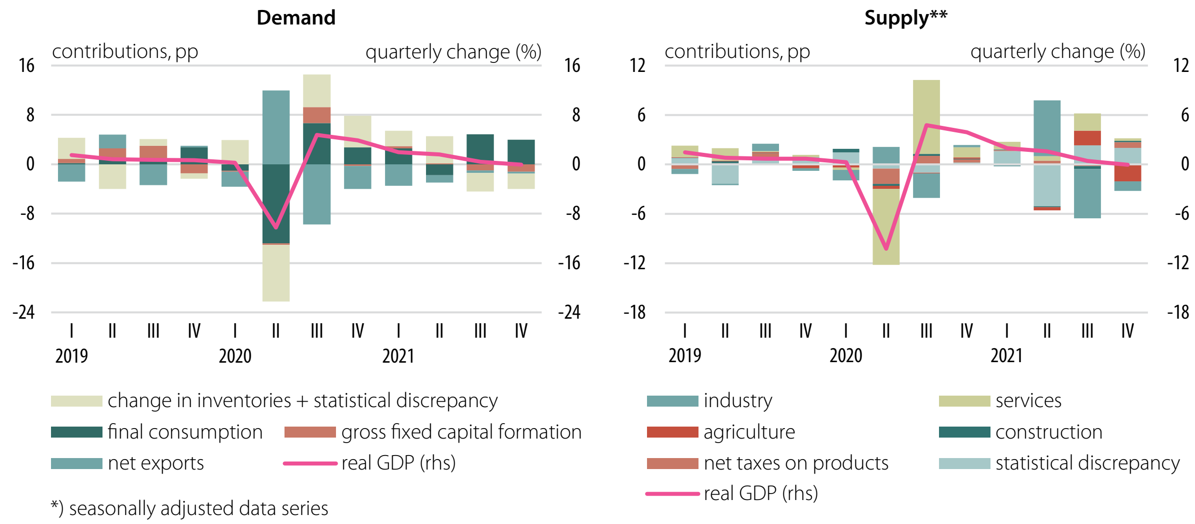
Compared to the forecast in the February 2022 *Inflation Report*, the annual rate of increase of consumer prices in March was considerably higher (10.2 percent versus 8.0 percent). More than 1 percentage point of the difference is due to the substantially stronger-than-expected rise in the oil price and, consequently, in fuel prices, whereas approximately 1 percentage point reflects the larger hikes in food prices than those anticipated. Utility prices had an opposite influence, as the extension of the scheme to compensate and cap prices starting with February exerted a greater-than-estimated disinflationary impact.

2. Economic developments

1. Demand and supply

The final quarter of 2021 was marked by persistent supply issues (mainly associated with global supply bottlenecks, increases in production costs, particularly energy costs, as well as with the limitations generated by a new pandemic wave), which translated into a 0.1 percent drop in real GDP (quarterly change). Towards the end of the period and at the beginning of 2022, the emerging prospects were nevertheless hinting at a recovery of the domestic economy, amid supply constraints subsiding to some extent. The disruptions caused by the Russia-Ukraine war weaken however growth expectations (Chart 2.1).

Chart 2.1. Contributions to economic growth*



*) seasonally adjusted data series

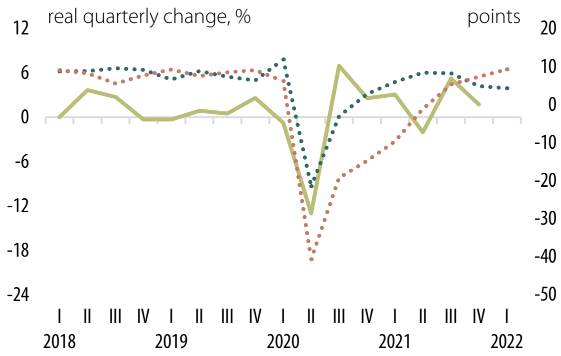
**) the difference between the total and the sum of components is accounted for by the seasonal adjustment of "services" through the direct approach

Source: NIS, NBR calculations

In 2021 Q4, private consumption saw its quarterly growth rate go down by 3.5 percentage points to 1.7 percent (9.4 percent in annual terms), under the impact of the erosion of household purchasing power, amid the broad-based increase in consumer prices[8] and households' concern about the rise in energy prices (Chart 2.2). Consequently, trade growth was further subdued (0.3 percent, quarterly change). Purchases of durables dropped by 1.9 percent, whereas the quarterly pace of non-durables sales remained in positive territory (0.6 percent), on account of

[8] The average real wage was 0.4 percent lower than the previous quarter's average.

Chart 2.2. Household consumption and expectations of trade and services companies*



*) seasonally adjusted data series

**) final consumption expenditure of households and non-profit institutions serving households

Source: NIS, EC-DG ECFIN

households' increased preference for own brand products of the main store chains or for discount stores.

In the first months of 2022, purchases of goods seemed to have witnessed a slight recovery (as shown by the 0.8 percent advance in the trade turnover volume in January-February versus the 2021 Q4 average, as well as by market signals for March). This was due to temporary influences, such as a reduction in supply disruptions in the durables segment (especially motorcars), the influx of Ukrainian refugees, which boosted purchases of staple products, or consumers' overreaction induced by the propagation of information concerning the rise in motor fuel prices, on the back of the war in Ukraine. As for motor fuels, the upward path in sales may continue, on account of the increase in people's mobility, after all pandemic-related restrictions were lifted in March. Nevertheless, consumer demand will probably see modest developments during 2022, given that the dampening effects generated by the inflationary environment will be accompanied by a more prudent behaviour, underpinned by the tense geopolitical situation in the region, which will weigh particularly on the durables segment.

In 2021 Q4, the general government deficit widened to lei 35.7 billion (or 3.0 percent of GDP)[9], comparable to that recorded in 2020 Q4 (lei 34.5 billion, i.e. 3.3 percent of GDP). This widening was the result of the substantial increase in total budget spending[10], chiefly on account of expenditure on projects financed from non-repayable external funds[11] and capital expenditure[12]. An additional, albeit weaker, effect came from the rise in spending on goods and services, and on other transfers[13]. Their impact was only slightly offset by the decline in social security spending[14].

In turn, budget revenues increased, albeit more modestly[15], primarily under the influence of higher disbursements from the EU, as well as on account of receipts from VAT, social security contributions and corporate tax, only partly counterbalanced by the contraction in non-tax revenues[16] and excise duties.

9 After dropping to lei 10.5 billion (0.9 percent of GDP) in the previous quarter.

10 Its real annual dynamics thus stepped up to 3.7 percent, compared to a 4.4 percent contraction in the previous quarter.

11 Including EU subsidies for the agricultural sector.

12 Its real annual rate of change turning positive again.

13 Spending on subsidies, interest expenses, and other expenditure also posted increases.

14 Its real annual dynamics fell even more markedly into negative territory; in turn, staff costs continued to contract in annual terms.

15 Their real annual growth rate decelerating to 6.6 percent, from 9.3 percent in 2021 Q3.

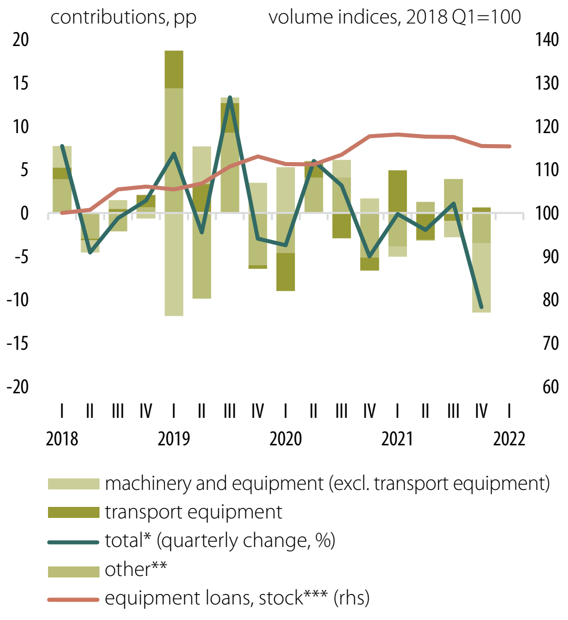
16 However, their real annual dynamics returned to positive territory.

In 2021 as a whole, the budget execution posted a deficit of lei 80.0 billion (6.8 percent of GDP) – slightly below the target set at the last budget revision of 2021 and significantly lower than in the previous year (lei 101.8 billion, i.e. 9.6 percent of GDP).

In 2022 Q1, the budget deficit reached lei 15.7 billion – somewhat higher than in 2021 Q1 (lei 14.6 billion) –, accounting however for 1.19 percent of GDP compared to 1.24 percent of GDP in 2021 Q1.

Gross fixed capital formation declined further in quarterly terms (by 4.2 percent), thus standing 6 percent lower than in the last quarter of 2020. However, 2022 started under moderately optimistic auspices (with regard to equipment purchases and civil engineering works), which may persist depending largely on the domestic economy's capacity to turn to account the EU funds coming from the two standard financial frameworks[17] overlapped with the NGEU instrument, particularly by achieving the targets and milestones set out in the National Recovery and Resilience Plan. The implementation of investment projects in the infrastructure, digitalisation and energy efficiency areas included in this programme is also likely to spark the interest of foreign investors. This may reflect in an upturn in equity (FDI component that hit an all-time low in 2021, if leaving aside the net flows recorded in 2020, and stood lower in January-February 2022 than in the same year-ago period). The role of non-repayable funds to consolidate capital stocks is all the more important as the global investment environment will feel the effect of risk aversion generated by the heightening geopolitical tensions in the early spring.

Chart 2.3. Investment, excluding construction



*) according to ESA 2010, seasonally adjusted data series

**) IT software, investment in agriculture (plantations, livestock), ownership transfer services, R&D, geological works, etc.

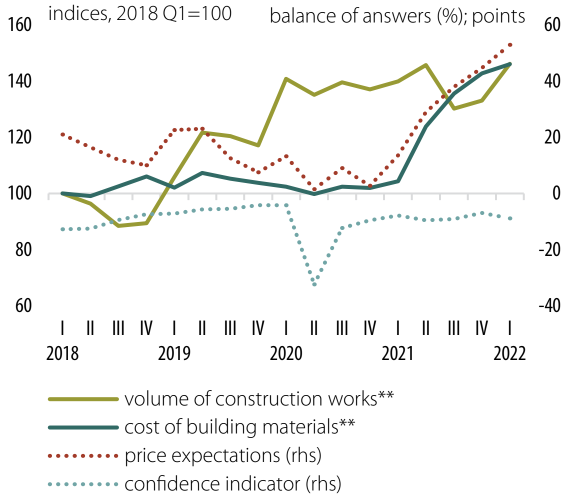
***) Jan.-Feb. for the latest period, seasonally adjusted data series

Source: Eurostat, NIS, NBR calculations

Equipment purchases decreased further in 2021 Q4, i.e. by 8 percent, due to the limiting effect on companies' financial resources exerted throughout the year by the bottlenecks in the supply of inputs, as well as by the high commodity prices and transportation costs (Chart 2.3). The temporary decrease in the shortage of semiconductors towards year-end and the prospects for an improvement in the health crisis created the possibility for a recovery in capital investment in 2022, as shown, *inter alia*, by the pick-up in the volume of domestic orders to the capital goods-producing sub-sectors (excluding the automotive industry). However, the additional pressures generated by the war in Ukraine on the activity of companies (via production costs, particularly energy costs, and the disruptions in the supply chains involving the two belligerent countries) lessen the probability of a significant rebound in equipment purchases in the following quarters.

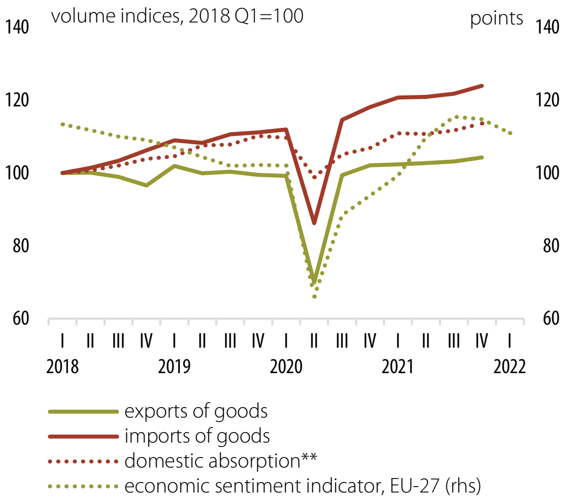
17 Out of the structural and investment funds allocated to Romania under the previous financial framework (2014-2020), approximately 42 percent were still available at mid-April 2022.

Chart 2.4. Construction*



*) seasonally adjusted data series
**) Jan.-Feb. for the latest period
Source: NIS, EC-DG ECFIN

Chart 2.5. Foreign trade*



*) seasonally adjusted data series
**) excluding the change in inventories
Source: NIS, EC-DG ECFIN, NBR calculations

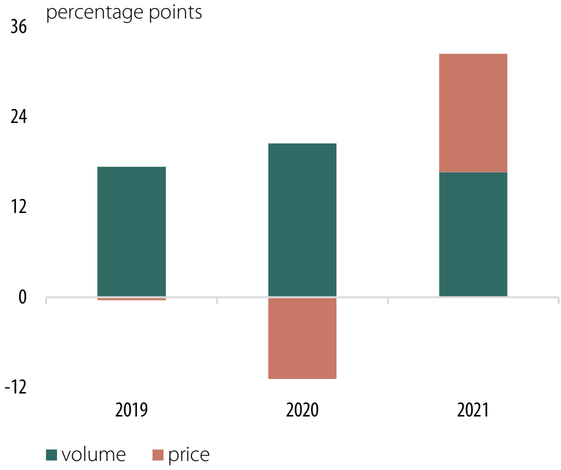
Investment in construction saw a recovery in the last part of 2021, while data for January and February 2022 hinted at the continuation of the upward path (Chart 2.4). The moderately positive outlook may persist even amid operational difficulties that intensified towards the end of Q1. These are related to the further high costs of energy and materials, as well as to the dependence on imports (high in the case of bitumen and steel-reinforced concrete) from Russia and Ukraine (either through direct exposure or via suppliers who rely on raw materials from these countries). Civil engineering works are more likely to see a positive performance, due also to government support to fully or partly publicly-funded projects in the procurement or implementation stage, for which an adjustment in contract values of works and goods procured (equipment, machinery and technological equipment) can be requested in line with the change in prices for building materials[18]. The prospects are however subdued for the construction of buildings, the wider difference between actual and pre-contract prices (as a result of higher prices of inputs) further causing delays in construction works and the postponement of new projects. Additional negative influences on the demand side are expected in the residential segment, on the back of the lower household purchasing power and tighter lending conditions.

The temporary appeasement of tensions in global value chains towards end-2021 spurred world trade relations, as also seen in the case of Romania's international trade (Chart 2.5). The context created by the Russia-Ukraine war will most likely have a limited direct effect on local exports, considering the modest share of the two countries. The direct impact is envisaged to be relatively stronger on the import side, given the exposure to Russia in terms of energy, Romania ranking however among the European countries with low dependence.

The dynamics of exports of goods stepped up versus the previous period (up to 1 percent, quarterly change), a trend that continued at the beginning of 2022 as well, as suggested by the 4.4 percent increase reported January through February

[18] According to Government Emergency Ordinance No. 47/15 April 2022.

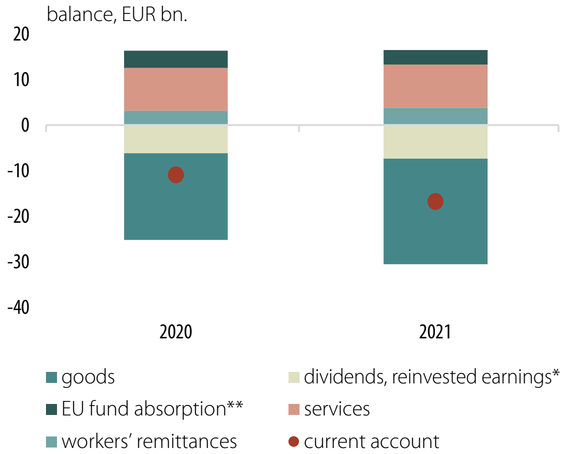
Chart 2.6. Contributions to trade deficit widening*



*) fob-fob deficit based on international trade in goods data

Source: Eurostat, NBR calculations

Chart 2.7. Current account and main components



*) FDI companies
**) recorded in income accounts

Source: NBR

by the industrial turnover volume on the external market (change versus the 2021 Q4 average). The most important contributions were made by exports of automotive products, electrical equipment, rubber, machinery and equipment, as well as of petroleum products, basic metals and fabricated metal products. Import growth accelerated to 1.8 percent in quarterly terms, the evolution being visible for all main groups of goods[19] (intermediate goods posted the swiftest rate of change, i.e. 4 percent). In annual terms, imports rose faster than exports throughout 2021, with net external demand making a -1.4 percentage point contribution to GDP growth. Looking at the trade balance, the gap entailed by these developments was accompanied by the reversal of terms of trade – from above one in 2020 (100.1 percent) to an unfavourable below-one level in 2021 (99.2 percent), the price component thus determining almost half of the widening of the deficit on trade in goods (Chart 2.6). The evolution also affected the current account balance, which worsened by nearly 54 percent in 2021 (to EUR 16.8 billion), the balance on trade in goods accounting for 72 percent of this change. The first two months of 2022 saw no improvement thereof, the current account deficit rising by approximately 56 percent in annual terms (Chart 2.7).

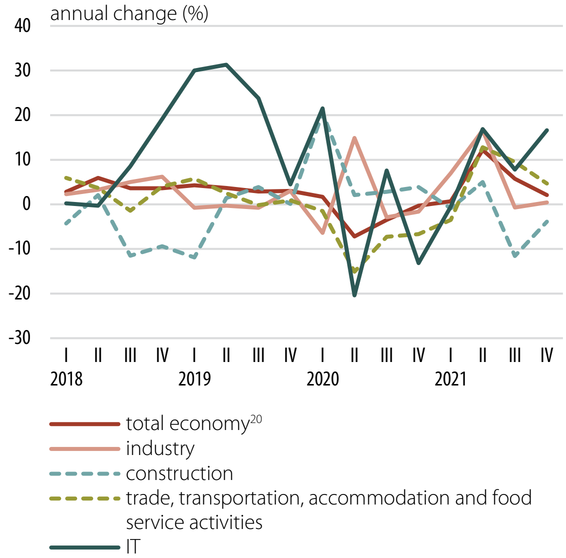
Labour productivity

Labour productivity economy-wide increased in annual terms also in 2021 Q4, by 2.1 percent, a slightly lower pace of growth than in the previous quarter. Substantial positive contributions continued to come from the IT sector, which was one of the most dynamic in the economy in 2021, given companies' further strong appetite for digitalisation, as well from the activities that benefited from the partial easing of mobility restrictions: arts, entertainment and recreation activities, trade and accommodation and food service activities (Chart 2.8).

In industry, the indicators of labour productivity for 2021 Q4 show a relative stagnation in annual terms or even a decline for monthly data series. Nevertheless, these developments stemmed from the domestic low in manufacturing activity recorded in October, when the electronic component supply issues culminated,

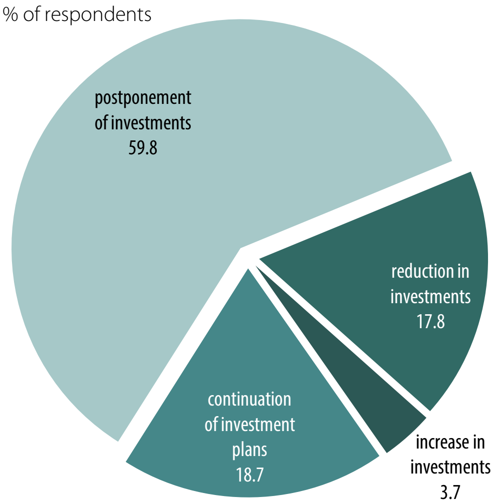
19 According to the standard international trade classification by broad economic categories – BEC (Source: Eurostat).

Chart 2.8. Labour productivity in the economy



Source: Eurostat, NIS, NBR calculations

Chart 2.9. Investment plans of local companies amid the war in Ukraine



Source: National Council of Small and Medium Sized Private Enterprises in Romania (CNIPMMR)

pushing the production of several sub-sectors to deeply negative annual dynamics (the automotive industry, the manufacture of other transport equipment, electrical equipment or machinery and equipment). Subsequently, as the global supply chain disruptions eased, production rebounded strongly, confidence indicators improved, and the annual rate of change of new orders in manufacturing returned to positive territory in December after four months of severe contractions. Furthermore, positive signals emerged in early 2022 with respect to investment projects in sub-sectors such as the manufacture of furniture, other transport equipment, pharmaceuticals, paper and paper products or building materials, many of them also aiming at some form of higher energy efficiency or energy production on their own. In the automotive industry, the favourable developments in the first months of the year were driven by the roll-out of a new car model on the domestic front, the number of EU new car registrations of vehicles made in Romania and the (temporary) improvement in the functioning of supply chains.

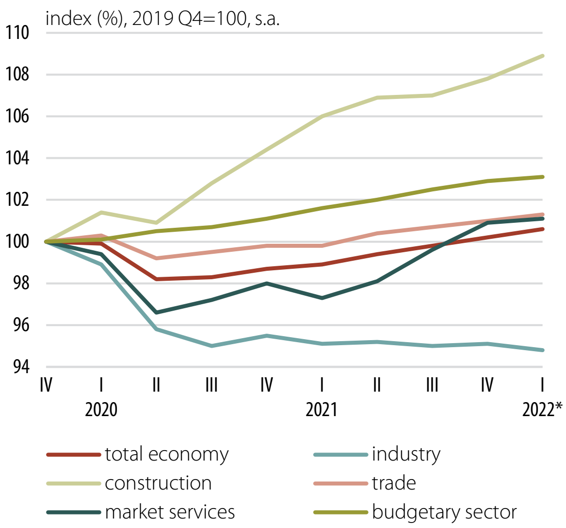
However, the outbreak of the war in Ukraine threatens to alter the investment landscape in the Romanian economy, amid the deeper energy crisis, the disruptions in the global value chains that include the belligerent countries and an environment marked by substantial uncertainty. The high energy prices compelled the producers in energy-intensive manufacturing sub-sectors (metallurgy, the chemical industry) to reduce their activity and the sharp rise in most industrial commodity prices (aluminium, palladium, platinum, neon, nickel, argon or titanium) risks to strongly affect the firms in the capital goods industry, including the automotive sub-sector. According to a survey conducted by the National Council of Small and Medium Sized Private Enterprises in Romania (CNIPMMR) about one month after the start of the invasion, almost 80 percent of the 2,600 respondents announced their intention to postpone or reduce their investments until the situation in Ukraine was clarified, with potential negative effects on the productive capacity of the economy (Chart 2.9).

20 The indicator was determined based on employment data in the Household Labour Force Survey (LFS), which were recalculated according to the current methodology back to 2009. The data series on employment in accordance with the national accounts methodology (which is based on the LFS) has not been revised yet, so that the readings for 2021 are not comparable with those in the previous years.

Labour market developments

Labour market developments continued to be relatively favourable in 2021 Q4 and early 2022, amid the still limited effects exerted by the bottlenecks in global production chains or the rise in costs, particularly energy costs, as well as by the fourth pandemic wave. This trend is foreseen to persist in 2022 Q1 overall, as suggested by companies expectations' on labour demand. Nonetheless, the next quarter may see a certain worsening of the outlook, following Russia's invasion of Ukraine at end-February.

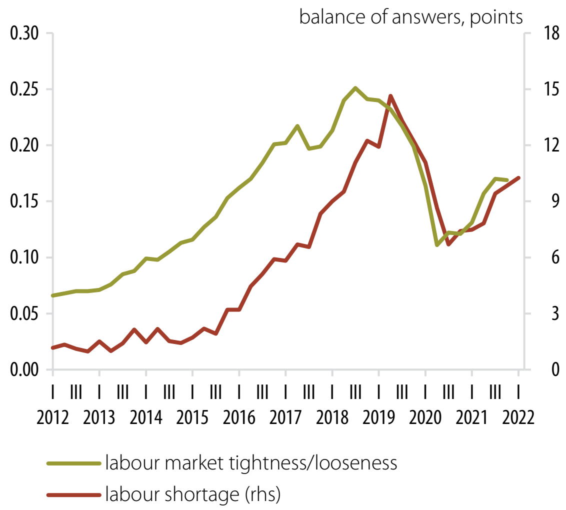
Chart 2.10. Number of employees economy-wide



*) Jan.-Feb.

Source: NIS, NBR calculations and estimates

Chart 2.11. Labour market tightness/looseness



Note: The labour market tightness indicator is calculated as the ratio of the job vacancy rate to the ILO unemployment rate. Labour shortage refers to the difference between the share of answers of companies citing the difficulty of finding workforce as a factor that constrains their economic activity and the share of answers of companies that deem they do not face this problem; the indicator refers to manufacturing, construction and services and was aggregated depending on the number of employees in each sector.

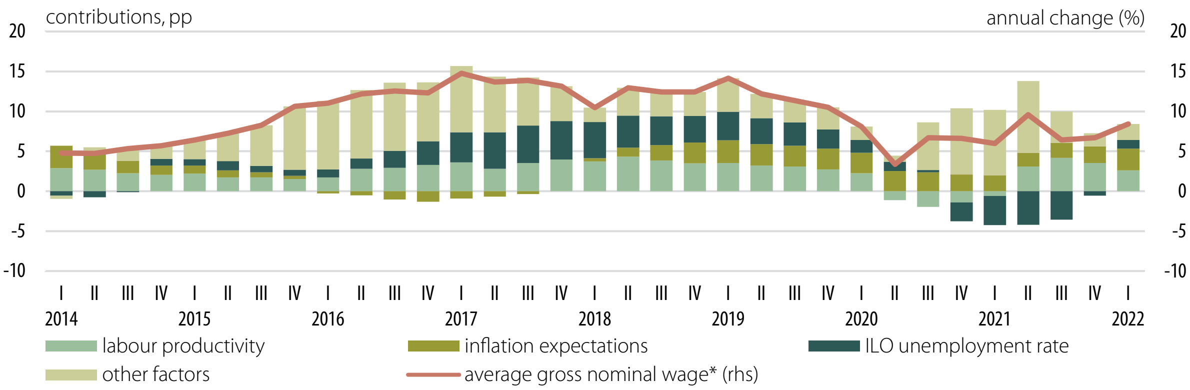
Source: NIS, Eurostat, EC-DG ECFIN, NBR calculations and estimates

January through February 2022, the annual dynamics of the number of employees economy-wide picked up to 1.8 percent (from 1.5 percent in 2021 Q4), headcount reaching a new record high of the available series. The breakdown showed further mixed developments. Specifically, industry continued to perform modestly, except for certain sub-sectors that reported noticeably larger payrolls than the pre-pandemic level (the manufacture of electrical equipment, non-metallic mineral products and pharmaceutical products), while companies in the automotive industry, energy and the light industry kept on downsizing. The areas favoured by the pandemic context such as healthcare, IT, postal and courier services, but also construction and trade further witnessed a swift pace of hiring, whereas in accommodation and food service activities the jobs lost at the onset of the pandemic were recovered. Other services sub-sectors recorded rather modest developments (transportation and storage, financial intermediation, real estate activities, recreation activities; Chart 2.10).

The ILO unemployment rate (monthly data) rose to 5.7 percent in January-February 2022 (from 5.4 percent and 5.6 percent in the final two quarters of 2021), standing almost 1 percentage point above the pre-pandemic level. Given the increase in employment, the higher labour supply in this period largely mirrors the movement of some inactive working-age persons into the economically active population. Thus, in 2021 Q3 and Q4 the rise in the number of unemployed came with a decline in the number of discouraged inactive workers, who probably started to actively search for a job and are available to work immediately. The possible determinants include the higher living costs, but also the active policies implemented to this end (for instance, the incentive given to recipients of social assistance benefits when entering the labour market[21] and the provision of educational programmes for this category of persons, financial incentives to companies that hire young people and over 50s, higher incentives for parents who return from parental leave earlier). At the same time, the ILO unemployment rate running above the pre-pandemic level may signal the faster pace of structural changes in the economy, namely the permanent destruction of some jobs in industry concurrently with the increase in payrolls in other economic sectors, in some cases with workers from outside the EU (a 67 percent rise in their number in 2021, to 50,000 persons, ahead of a doubling in 2022). The job vacancy rate was relatively stable in 2021 Q4, which led to the labour market tightness/looseness indicator[22] remaining flat at a level below that posted before the outbreak of the pandemic. The labour shortage reported by companies (the balance of answers about the limiting influence of this factor on activity derived from the DG ECFIN survey) also stood lower than the pre-pandemic values, but the indicator continued to increase (Chart 2.11).

Signals were positive for early 2022, in Q1 the DG ECFIN indicator on the number of employees rising to 108.5 points from 107.4 points in 2021 Q4. However, prospects are likely to worsen in Q2, amid the economic fallout of Russia's invasion of Ukraine.

Chart 2.12. Contribution of determinants to the dynamics of the average gross wage economy-wide



*) adjusted for the effect of the transfer of social security contributions payable by employers to the charge of employees as of 2018

Note: In this specification of the wage Phillips curve, wage dynamics are determined by labour productivity, labour market conditions and labour market participants' inflation expectations (assumed to be adaptive) as follows:

$\Delta\, average\ gross\ wage_t = \beta_1 \Delta average\ gross\ wage_{t-1} + \beta_2 \Delta labour\ productivity_t + \beta_3 \Delta CPI_{t-2} + \beta_4 \Delta ILO\ unemployment\ rate_{t-2} +$ other factors

Data series were seasonally adjusted. The estimation was performed using quarterly growth rates (stationarised data) and the annual dynamics of wage earnings and the related contributions of determinants were subsequently calculated.

Labour productivity was determined based on employment data in the Household Labour Force Survey (LFS), which were recalculated according to the current methodology back to 2009.

Source: NIS, Eurostat, NBR estimates and forecasts

January through February 2022, the annual growth rate of average gross wage earnings economy-wide accelerated to 9.5 percent, i.e. up 2.8 percentage points from 2021 Q4. Private sector wage dynamics stepped up to 11.7 percent (up 3.2 percentage points), the determinants including the hike in the minimum wage economy-wide

21 The measures provide for the further granting of social assistance benefits for a period of six months since the date on which a working-age person from the family benefiting from social assistance took up work, conditional on the former's signing an employment contract for at least 24 months.

22 The ratio of the job vacancy rate to the ILO unemployment rate.

by almost 11 percent and the fast-paced rise in inflation, given that the renegotiations of employment contracts that occur at the beginning of the year probably involve an implicit or explicit adjustment of wages for the inflation rate. Unlike the previous quarters, in the first part of 2022 a moderate positive contribution to the annual growth rate of the average gross wage came from the stepwise improvement in labour market conditions, primarily in 2021 H1, with the economic recovery that followed the first pandemic wave. In this context, the ILO unemployment rate declined gradually from 6.3 percent in the latter part of 2020 to 5.4 percent in 2021 Q3, the effects on the quarterly change in wages becoming manifest with a certain lag and feeding progressively into the annual dynamics. In the budgetary sector, the pace of wage growth was further moderate, amid the freeze in wages, yet a slight pick-up can be noticed, to 3.0 percent (from 0.9 percent in Q4), driven by the fact that employees in education and certain categories of healthcare staff were excepted from having their wages capped and possibly by a more even distribution of vacation vouchers throughout 2022 (Chart 2.12).

2. Import prices and producer prices on the domestic market

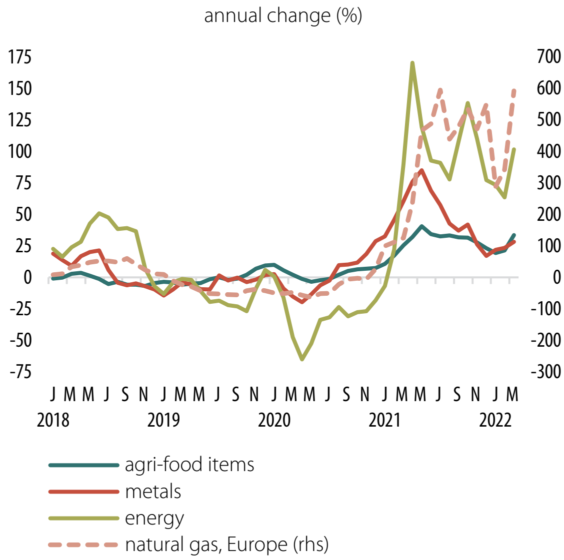
> The rise in commodity prices continued to affect the dynamics of import prices and producer prices on the domestic market, even to a point where the latter reached all-time highs in early 2022. Moreover, the elevated costs for fertilisers and utilities translated into significantly faster growth rates of agricultural producer prices. The trends will intensify in the period ahead, as the outbreak of the war heightens the already existing tensions on the commodities market, while pressures from unit labour costs build up on the domestic front.

2.1. Import prices

Energy commodity prices continued their strong upward trend – the annual dynamics of the World Bank composite index came in at almost 80 percent in 2022 Q1, slightly more moderate than at end-2021, due however solely to statistical effects. Looking at the crude oil market, the further robust demand, which was less affected by the spread of the Omicron variant than initially estimated, and the supply limitations under the OPEC+ agreements, to which added afterwards the uncertainty generated by the Russia-Ukraine war and the international sanctions, prompted price growth bursts. Specifically, the benchmark Brent oil price hit a 14-year high in March (daily readings of over USD 130/barrel). Natural gas prices in Europe saw a slight correction in the first two months of 2022, given the recourse to alternative fuels for electricity production and the milder winter. Nonetheless, the outbreak of the Ukraine conflict pushed the annual price dynamics up to nearly 600 percent in March, versus 313 percent in January-February.

In the case of metals, the pick-up in prices over the first two months of the year gained momentum in March, due to Russia's significant export position. The low stocks and the contraction in the manufacture of aluminium in China (amid the country's efforts to reduce pollution and the restrictions imposed by the re-emergence of COVID-19 cases) underpinned the rise in aluminium prices, while the halt in the activity of some mining pits in Brazil and China's keener interest in infrastructure projects drove iron ore prices up. The prices of other metals, such as tin, nickel or zinc, used primarily in the electronics industry, also continued to witness large increases.

Chart 2.13. International commodity prices



Source: World Bank, FAO, NBR calculations

The FAO food price index further followed an uptrend and saw an all-time high as well in March – a 33.6 percent annual change, with broad-based price hikes (Chart 2.13). Specifically, grain prices were boosted by prospects of a reduction or even a discontinuation of deliveries from Russia and Ukraine, which jointly account for around 30 percent of the world's wheat exports and 18 percent of maize exports, according to World Bank data. Stronger tensions have been visible in the oilseeds market, with about 64 percent of global exports coming from the conflict-ridden countries. The prices of meat and dairy products also went up, amid the supply-demand mismatch[23] and higher production costs.

In 2021 Q4[24], the unit value index of imports rose by another 1.7 percentage points versus the previous quarter, to 113.6 percent. In addition, the USD/RON exchange rate made a larger negative contribution[25], affecting import prices of commodities and some consumer goods (textiles, footwear, fuels), most of which originate from outside the EU.

More significant contributions to these developments came from intermediate goods (chemical products, paper and base metals) and some goods holding a relevant share in the CPI basket, on both the food (fats, sugar) and the non-food (pharmaceuticals, fuels) segments. The UVI of iron ore followed an opposite trend, given the oversupply generated by the reduction in steel production capacities; the downward correction of over 40 percentage points to 144 percent will however reverse in the coming period, in line with the international price movements (quarterly growth of more than 27 percent).

[23] The rebound in demand in March, once restrictions were lifted, overlapped with the weak supply, associated primarily with labour shortage, caused by the spread of the Omicron variant. The deficit widened in the latter part of the period, in particular for poultry, amid outbreaks of avian influenza and the onset of the war in Ukraine (a significant exporter in this segment), but also for pigmeat, due to the decline in livestock.

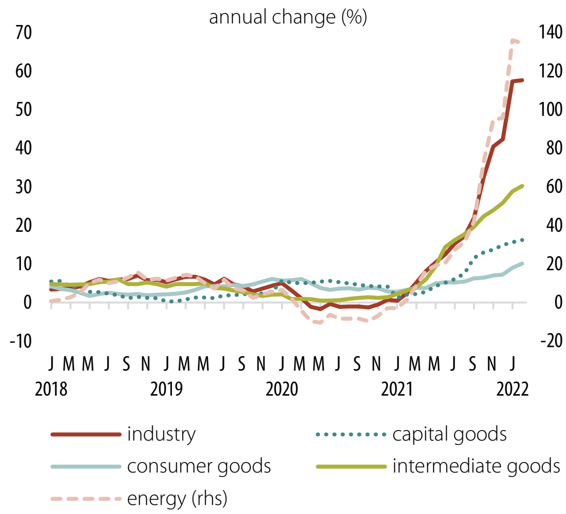
[24] For which the most recent data on developments in the value added index of imports are available.

[25] The depreciation of the domestic currency against the US dollar deepened in 2021 Q4 versus the previous quarter.

2.2. Producer prices on the domestic market

In January-February 2022, the annual growth rate of industrial producer prices on the domestic market increased further to 57.5 percent, a record high of the historical data series. The 19 percentage-point step-up from 2021 Q4 owed primarily to the heightened tensions on the energy market, which were also passed through into the prices of other categories of goods (Chart 2.14). The robust dynamics of producer prices will persist in the period ahead, as shown by the NIS/DG ECFIN Survey of March 2022, which points to a new rise in the balance of answers for future developments in producer prices to a two-decade high (48 percent). This is further due to the increase in commodity costs, mainly energy costs, a trend which has been exacerbated by the outbreak of the Russia-Ukraine war, the supply chain bottlenecks and the high freight costs.

Chart 2.14. Industrial producer prices on the domestic market



Source: NIS, Eurostat

Energy producer prices reported the fastest pace of increase, which picked up by 47.1 percentage points from Q4 to 135.2 percent in January-February, solely on the back of natural gas and electricity price developments. Specifically, in the first two months of 2022, spot prices for natural gas and electricity on domestic wholesale markets went up, on average, five times and four times, respectively, compared to the same year-ago period, in line with the trend in external prices. In the case of electricity, an additional effect had the rise in transmission and distribution prices, as well as the mandatory quota for green certificates, as of 1 January 2022. Hence, the annual dynamics of prices for electricity, gas, steam and air conditioning supply climbed to 146.3 percent in January-February (against an average of 89.5 percent in 2021 Q4). The annual rate of increase of crude oil processing prices has slowed down, but is still elevated (69.6 percent), a renewed upward movement being expected in the coming period amid the abrupt jump in international crude oil prices.

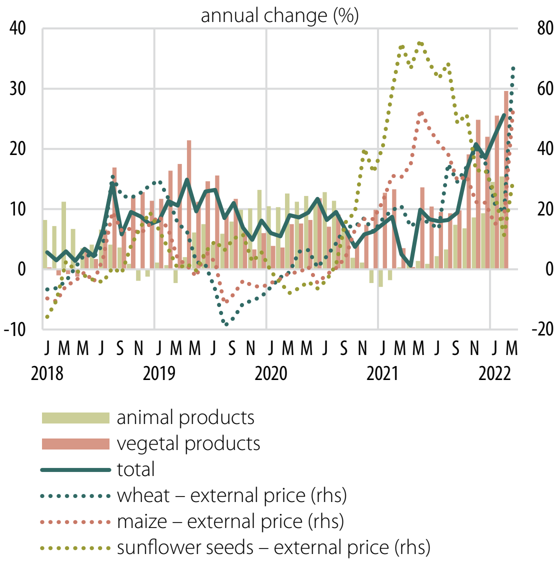
The rising costs of commodities[26] and materials affected producer prices for intermediate and capital goods, their pace of increase picking up by 5.5 percentage points and 2.1 percentage points, to 29.5 percent and 15.9 percent, respectively). The upward path of wood prices was attributable not only to the decline in domestic supply (small volumes of wood at auctions), but also by the limited external supply (higher export taxes in Russia, China's focus towards protecting its forest stock, adverse weather conditions in Canada). The resumed step-up in metal prices, iron ore in particular, led to price increases for fabricated metal products, while the elevated costs of energy and the transition to the green economy[27] reflected in the prices of building

[26] Energy, metals, wood and paper.

[27] Given that coal residues account for a significant share of the manufacture of some building materials.

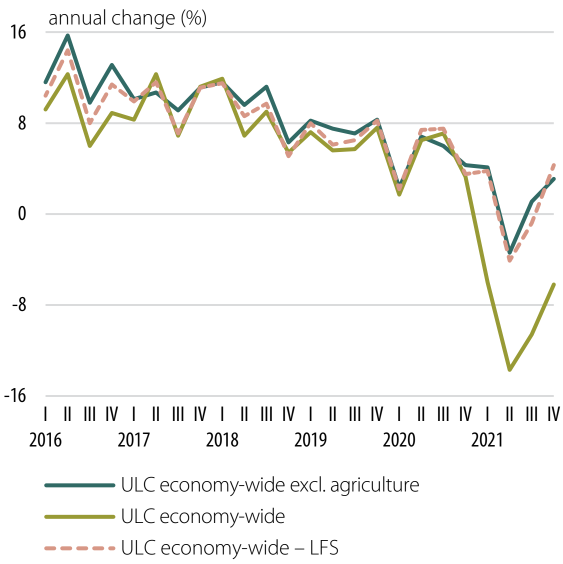
materials, the pass-through of these costs being facilitated by the still strong domestic demand in the sub-sectors concerned. Furthermore, the pressure exerted by the rise in natural gas prices caused the global supply of fertilisers to dwindle[28], pushing their prices significantly higher, with repercussions on agri-food commodity prices.

Chart 2.15. Agricultural producer prices



Source: NIS, Bloomberg, NBR calculations

Chart 2.16. Unit labour costs



Source: NIS, Eurostat, NBR calculations

The annual growth rate of producer prices for consumer goods went up by another 2.6 percentage points, to 9.5 percent. A significant contribution came from developments in the food industry, where the mounting costs (primarily costs of agri-food commodities and utilities) drove the annual rate of increase in prices to 13.3 percent from 9.3 percent in 2021 Q4.

The annual change in agricultural producer prices accelerated further in the first two months of 2022, climbing to 23.9 percent, i.e. 5.3 percentage points above the level recorded in 2021 Q4 (Chart 2.15). Behind this upward trend stood vegetal products (up by 5.7 percentage points to 27.6 percent) and animal products (up by 6.7 percentage points to 15.0 percent). In the former case, the high costs of energy and fertilisers led to large double-digit increases in the prices of grains, sunflower and potatoes – the latter segment being affected also by the limited supply, given the previous year's lower crops. Most animal products reported strong price dynamics, further accounted for by the higher production costs (animal feed, utilities). The exception was pigmeat, whose annual price growth rate remained at 1.6 percent, the reported quarterly decline owing to the fall in demand from China, which – amid the recovery of domestic livestock following the African swine fever outbreak – introduced, starting 1 January 2022, a surcharge to discourage imports.

Unit labour costs

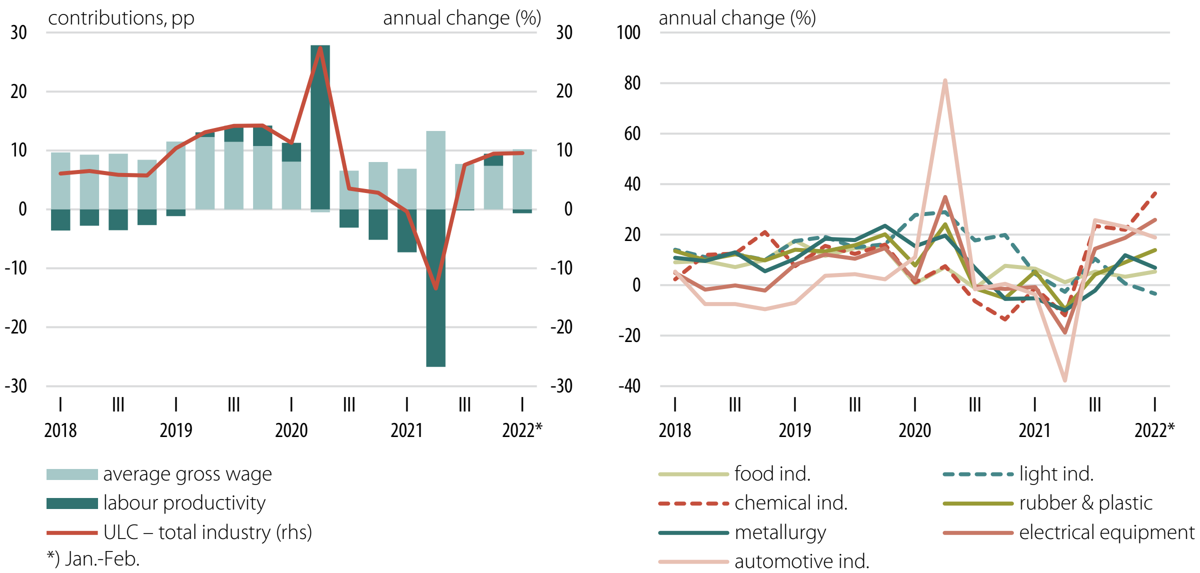
Unit labour costs economy-wide saw a new slowdown in their negative annual dynamics in 2021 Q4, to -6.2 percent, from -10.6 percent in the prior quarter. The path of this indicator is further distorted by the methodological change in the statistics of employed persons at the beginning of the year, i.e. the exclusion from employed persons of a considerable number of households that produce agricultural goods exclusively or

[28] Russia and China restricted their exports, while some major European producers, including Romania, have scaled back their activity.

mostly for self-consumption. Adjusting for this effect[29], the annual growth rate of ULC would have picked up to 4.3 percent (from -1.0 percent in Q3), remaining below the pre-pandemic level of roughly 7 percent (Chart 2.16).

January through February 2022, the annual growth rate of unit wage costs in industry remained high at 9.5 percent, similarly to 2021 Q4. Labour productivity improved noticeably in most industrial sub-sectors, amid the positive reaction of output to the better functioning of global value chains. Nevertheless, this was accompanied by a broad-based acceleration in wage dynamics, with factors such as the rise in the minimum wage or inflation expectations becoming increasingly relevant in the wage setting/adjusting process (Chart 2.17).

Chart 2.17. Unit wage costs in industry



Source: NIS, NBR calculations

Swift increases in unit labour costs were recorded in the manufacture of electrical equipment, the chemical industry, the manufacture of wood and the manufacture of furniture (with annual changes ranging between 20 percent and 36 percent), ahead of the automotive industry (19 percent), beverages (18 percent) and rubber and plastic products (14 percent). Conversely, more moderate increases in ULC were seen in the food industry, the manufacture of machinery and equipment, as well as in metallurgy (with annual changes ranging between 3.5 percent and 6.9 percent). Moreover, productivity rose faster than wages in certain sub-sectors, such as the light industry (the expansion of activity, alongside the downsizing of personnel), the manufacture of building materials, other transport equipment, mining and crude oil processing.

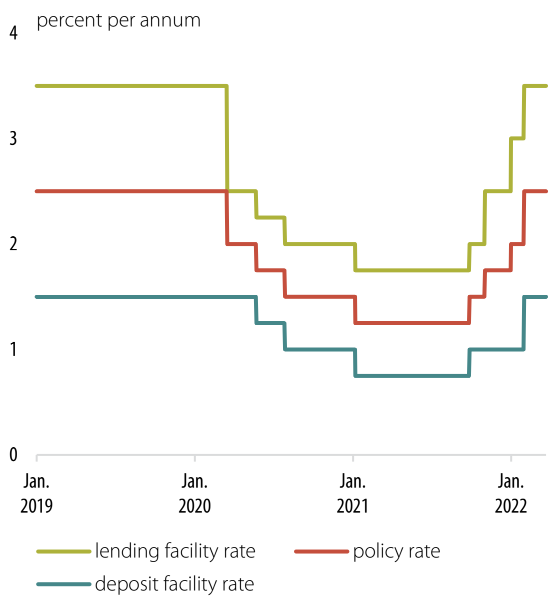
[29] Indicator determined based on employment data from the Household Labour Force Survey (LFS), the series being recalculated according to the new methodology back to 2009.

3. Monetary policy and financial developments

1. Monetary policy

The NBR increased to 0.50 percentage points the size of the monetary policy rate hike in February and kept the same step in April, thus bringing the key rate up to 3.00 percent. Furthermore, the lending facility rate and the deposit facility rate were raised to 4 percent and 2 percent respectively (Chart 3.1). At the same time, the central bank maintained firm control over money market liquidity and kept the existing levels of minimum reserve requirement ratios on both leu- and foreign currency-denominated liabilities of credit institutions at 8 percent and 5 percent respectively. These measures aimed to anchor inflation expectations over the medium term and to foster saving, so as to bring back the annual inflation rate in line with the 2.5 percent ±1 percentage point flat target on a lasting basis, in a manner conducive to achieving sustainable economic growth.

Chart 3.1. NBR rates



The NBR Board's decisions in February were warranted by the higher-than-expected pick-up in the annual inflation rate at end-2021 and the considerable worsening of its outlook under the impact of adverse supply-side shocks, which risked deteriorating medium-term inflation expectations and thus generating second-round effects.

Specifically, the annual inflation rate climbed to 8.19 percent in December 2021, from 7.80 percent in November, mainly as a result of further hikes in energy prices. Consequently, it saw a new significant step-up in 2021 Q4[30], lower however than in the previous quarter, given the capping and compensation of energy prices for households starting with November. This time again, the rise was primarily caused by exogenous CPI components, particularly the hikes in natural gas and electricity prices, as well as in fuel prices[31].

Moreover, the medium-term forecast updated in February showed a considerable worsening of the short-term outlook for inflation, under the strong impact of supply-side

30 From 6.29 percent in September.

31 Largely on account of the non-petrol-diesel subgroup. To these added more modest influences from VFE prices and administered prices.

shocks, mainly of energy prices. Thus, the annual inflation rate was expected to accelerate its growth in 2022 Q2 – to 11.2 percent in June versus 8.6 percent in the previous projection – and decrease only gradually over the following two quarters, remaining in December 2022 at 9.6 percent against 5.9 percent in the prior forecast. However, it was foreseen to witness a relatively steep downward adjustment in the first part of 2023, due to sizeable base effects, and return inside the variation band of the target in 2023 Q4, only slightly later than previously expected, dropping in December to 3.2 percent, marginally below the November 2021 projection.

The main additional inflationary effects were expected from far higher increases in natural gas and electricity prices, which would become strongly manifest after the withdrawal in April of compensation schemes for household consumers[32]. The features of support schemes were, however, uncertain and notable risks continued to come from developments in commodity prices, particularly of energy and agri-food, also amid the Russia-Ukraine geopolitical situation, as well as from persistent bottlenecks in production and supply chains.

The prospects for the annual inflation rate to climb to a two-digit level in Q2[33], as well as the inflation dynamics probably staying way above the variation band of the target until towards mid-2023 rendered necessary a larger size of the key rate hike, in order to anchor inflation expectations over the medium term and prevent the start of a self-sustained increase in the overall level of consumer prices – possibly via a wage-price spiral –, but also from the perspective of central bank credibility.

Nevertheless, underlying inflationary pressures were anticipated to be much more modest than previously forecasted and gradually weakening as of 2022 H2, given the considerable slowdown in economic growth in 2021 Q3, contrary to expectations, while the following two quarters overall were envisaged to witness declining and markedly lower-than-previously-projected GDP dynamics, amid the successive pandemic waves, the energy crisis and bottlenecks in production and supply chains. At the same time, economic growth was expected to decelerate considerably in 2022 and 2023; the loss of momentum was seen to be stronger than in earlier forecasts, owing *inter alia* to somewhat more moderate expansionary effects anticipated from the absorption of EU funds under the Next Generation EU instrument. The outlook rendered likely considerably lower-than-previously-estimated values of excess aggregate demand over the forecast horizon, with the positive output gap gradually shrinking as of mid-2022.

Moreover, uncertainties continued to stem from the evolution of the pandemic, amid the wave triggered by the Omicron variant, less virulent however, implying a lower and abating severity of mobility restrictions, in many European countries as well. At the same time, high uncertainties were further associated with the absorption of EU funds, especially those under the Next Generation EU programme. The fiscal policy stance remained a significant source of uncertainties and risks, given – on the one hand – the 2021 government deficit smaller than the target and – on the other hand –

[32] They were accompanied by additional influences, albeit much more modest, anticipated from the other exogenous CPI components – fuels, tobacco products, administered prices and VFE.

[33] For the first time since the NBR shifted to direct inflation targeting.

the requirement for further fiscal consolidation in line with the commitments under the excessive deficit procedure, yet in a challenging economic and social environment both domestically and globally, marked by the energy crisis and geopolitical tensions, as well as by the tightening trend of financing conditions.

According to subsequently-released statistical data, the annual inflation rate continued to rise gradually in the first two months of 2022, contrary to forecasts, climbing to 8.53 percent in February, even though exogenous CPI components had a disinflationary contribution overall, given the slower pace of increase of electricity and natural gas prices[34], amid a base effect and extended price capping schemes. Conversely, the annual adjusted CORE2 inflation rate followed a sharper-than-forecasted upward path in the first two months of Q1[35], but mainly as a result of the faster broad-based increases in processed food prices. Therefore, its advance further reflected the sizeable hikes in agri-food commodity prices and in energy and transport costs, alongside the influences from the persistent bottlenecks in production and supply chains. They were compounded by increasingly higher short-term inflation expectations, the resilience of demand on certain segments, as well as by the significant share of food items and imported goods in the CPI basket.

Economic activity continued to weaken in 2021 Q4 more than expected, falling by 0.1 percent versus the previous quarter, but solely on the back of the marked deterioration in the performance of agriculture. These developments made it likely for excess aggregate demand to remain very low during this period, in line with the February medium-term forecast[36]. In turn, annual GDP dynamics posted a markedly stronger-than-anticipated decline, i.e. to 2.4 percent from 6.9 percent in Q3, although the contractionary impact of net exports diminished during this period, as the annual change in imports of goods and services declined faster than that in exports thereof, with favourable implications for the evolution of the negative trade balance as well[37]. Conversely, the current account deficit widened in annual terms at a significantly swifter pace, under the impact of the worsening of the secondary income balance[38], its share in GDP thus rising to 7.0 percent during 2021 as a whole, from 5.0 percent in 2020.

The labour market witnessed mixed developments in the recent period. Specifically, the number of employees economy-wide increased slightly in December 2021 and January 2022, reaching a record high, whereas the ILO unemployment rate climbed to 5.7 percent in December 2021, remaining unchanged in the first two months of 2022, significantly above the historical low reached in the summer of 2019. Moreover, the labour shortage reported by companies posted a faster increase in 2022 Q1, from a level, however, considerably below its mid-2019 peak. The hiring intentions for the near-term horizon, as shown by surveys, rose in January-February, but saw a moderate downward adjustment in March, amid the high uncertainties generated by Russia's invasion of Ukraine and the retaliatory international sanctions.

34 Their impact outweighed considerably that of the larger-than-anticipated hikes in fuel prices, VFE prices and administered prices.

35 To reach 5.9 percent in February 2022 from 4.7 percent in December 2021.

36 Given, *inter alia*, the implications of the new revision of statistical data on GDP developments in 2020 and 2021.

37 Due also to the narrowing in this quarter of the unfavourable differential between the upward dynamics of import prices and those of export prices.

38 On account of a decrease in inflows of EU funds to the current account as compared to the same year-earlier period.

On the financial market, the main interbank money market rates witnessed a faster pick-up in February and March, reaching nine-year highs, following the new monetary policy rate hike, as well as amid the pronounced tightening of liquidity conditions and expectations on a further increase in the key rate. In turn, yields on government securities recorded strong rises in the early days of March, only partly corrected afterwards, given the abrupt deterioration of financial investor sentiment, especially vis-à-vis markets in Central and Eastern Europe, following the outbreak of the war in Ukraine and the imposition of international sanctions.

At this juncture, the EUR/RON exchange rate also posted an upward adjustment, albeit far more modest than those observed in the region, before quasi-stabilising at the new levels, in the context of the NBR's liquidity management actions, but also amid the subsequent relative abatement of volatility on the international financial market. However, risks to the leu's exchange rate remained elevated, given the size of the external imbalance and the risks to budget consolidation induced by the war in Ukraine, as well as the prospects for a faster normalisation of the monetary policy conduct by major central banks, the Fed in particular, and the fast-paced increase in key rates by central banks in the region, *inter alia* amid the worsening risk perception towards economies in the vicinity of the military conflict.

The annual growth rate of credit to the private sector climbed further during the first two months of 2022, reaching 15.8 percent in February, mainly on account of developments in leu-denominated loans to non-financial corporations. Hence, the share of the domestic currency component in total widened to 72.5 percent.

At the same time, according to the new assessments, the annual inflation rate was expected to rise somewhat more steeply in the coming months than anticipated in the February medium-term forecast, under the impact of supply-side shocks. The determinants behind the renewed worsening of the near-term inflation outlook were the much higher increases envisaged for fuel prices, and especially for processed food prices, mainly due to the stronger advance in crude oil and agri-food commodity prices, amid the war in Ukraine and the international sanctions in place. The inflationary effects thus exerted were foreseen to prevail in the near term over the substantial disinflationary impact presumably generated by the one-year extension of capping schemes for electricity and natural gas prices for households. They would primarily affect the dynamics of core inflation, given *inter alia* the large share held by processed food items in the latter's basket. Nevertheless, significant uncertainties were still associated with how the impact of support schemes would be assessed and included in the CPI calculation.

The cyclical position of the economy was, however, expected to exert subdued inflationary pressures in the near run, and implicitly softer than previously anticipated, as the probable slight reacceleration of economic growth in 2022 Q1 was envisaged to be followed by a renewed slowdown in Q2, under the impact of the war in Ukraine and the associated sanctions. The developments implied that excess aggregate demand would stick in 2022 H1 to significantly lower levels than anticipated in February.

The uncertainties and risks surrounding the medium-term inflation forecast were, in fact, considerably compounded by the war in Ukraine and the retaliatory international sanctions. They were likely to weaken domestic economic activity, especially by worsening the energy crisis and the production chain bottlenecks, but also via other channels, such as economy and inflation dynamics in Europe/worldwide, consumer and investor confidence, as well as risk perception towards the region, with an impact on financing costs. Moreover, the outlook on the absorption of EU funds, especially those under the Next Generation EU programme, was further marked by significant uncertainty.

By contrast, the improvement in the epidemiological situation on the domestic front led to the end of the state of alert and to the lifting of all mobility restrictions earlier than anticipated, with favourable effects on economic activity. At the same time, heightened uncertainties and risks were associated with the future fiscal policy stance, given – on one hand – the requirement for further fiscal consolidation amid the excessive deficit procedure and the tightening trend of financing conditions and – on the other hand – the challenging economic and social environment domestically and globally, marked by the implications of the war in Ukraine and of the sanctions imposed on Russia.

Such a juncture called for another 0.50 percentage point increase in the policy rate, so as to anchor medium-term inflation expectations and to foster saving, with a view to bringing back in the medium term the annual inflation rate in line with the 2.5 percent ±1 percentage point flat target on a lasting basis, in a manner conducive to achieving sustainable economic growth.

Consequently, the NBR Board decided in its meeting of 5 April to increase the monetary policy rate to 3.00 percent from 2.50 percent, as well as to maintain firm control over money market liquidity. In addition, the lending facility rate and the deposit facility rate were raised to 4.00 percent (from 3.50 percent) and 2.00 percent (from 1.50 percent) respectively. Furthermore, the central bank kept the existing levels of minimum reserve requirement ratios on both leu- and foreign currency-denominated liabilities of credit institutions (8 percent and 5 percent respectively).

2. Financial markets and monetary developments

> The daily average interest rate on interbank transactions[39] continued to rise swiftly in 2022 Q1, while longer-term rates on the interbank money market followed a sharper upward path. The EUR/RON exchange rate posted a slight downward adjustment at the beginning of the period, before returning, but also sticking to the higher readings reached in the autumn of 2021. The annual growth rate of credit to the private sector climbed further in double-digit territory January through February, whereas that of liquidity across the economy witnessed a slower decrease, remaining particularly swift.

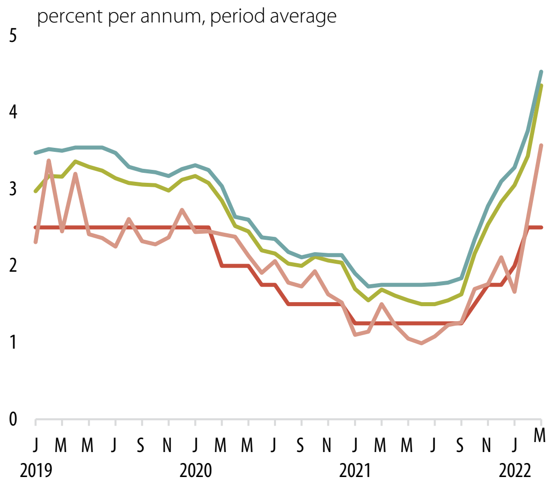
39 The average interest rate on transactions in deposits on the interbank money market (excluding the NBR), weighted by the volume of transactions.

2.1. Interest rates

The daily average interbank money market rate continued to rise briskly in 2022 Q1, prompted by the new policy rate increases and the extension of the interest rate corridor to the standard width of ±1 percentage point, as well as amid the tightening of liquidity conditions, *inter alia* given the central bank's firm control. Therefore, the quarterly average of the indicator[40] saw a renewed sizeable advance, adding 0.64 percentage points against the previous three months, to an 11-quarter high of 2.53 percent.

Liquidity conditions on the interbank money market recorded stronger fluctuations in the first half of Q1, under the heightened impact of Treasury operations, countered however markedly by consistent 1W deposit-taking operations[41], which the central bank resumed during this period to mop up the net liquidity surplus that had emerged at the beginning of the year. Nonetheless, the surplus narrowed quickly afterwards and banks' net liquidity position then turned strongly negative, amid the abrupt deterioration of financial investor sentiment, especially vis-à-vis markets in the region, as well as the keener appetite for liquidity, following the outbreak of the war in Ukraine and the imposition of international sanctions. The ensuing reserve shortfall was initially covered by the lending facility, and then also by the central bank's bilateral repo operations and, to a very small extent, purchases of leu-denominated government securities on the secondary market, meant *inter alia* to soothe tensions on this market segment[42]. Hence, very short-term rates on the interbank money market fell and stayed in the lower half of the interest rate corridor in the first part of Q1, before climbing at end-February and remaining slightly above the new level of the lending facility rate.

Chart 3.2. Policy rate and ROBOR rates



In turn, 3M-12M ROBOR rates saw their increase come to a temporary halt at the end of the first 10-day period in January, remaining stable for a short while. Then they re-embarked on an upward path, which steepened afterwards[43], prompted by the 0.50 percentage point hike in the monetary policy rate, as well as amid the marked tightening of liquidity conditions and expectations on a further increase in the key rate. Their quarterly averages thus rose more visibly versus 2021 Q4, by approximately 1.15 percentage points across

40 Weighted by the volume of transactions (excluding the NBR).

41 Carried out via auctions at a fixed rate (i.e. the monetary policy rate) and with full allotment. Their average daily stock stood at lei 5.3 billion in January and lei 1.3 billion in February. Nevertheless, they were accompanied by banks' strong recourse to the central bank's deposit facility.

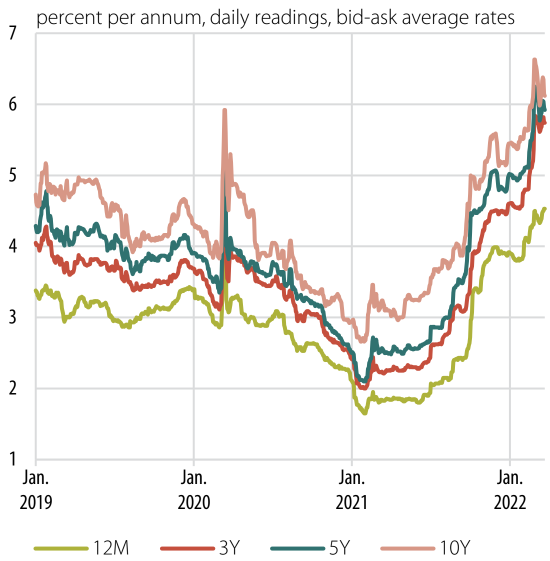
42 In March, the NBR purchased government securities worth lei 367.3 million. The previous government security purchases had been carried out March through April 2021.

43 Hitting nine-year highs in terms of daily readings in March.

the maturity spectrum, to stand at 3.65 percent for the 3M rate, 3.79 percent and 3.89 percent for the 6M and 12M rates respectively – the highest readings in 34 quarters (Chart 3.2).

Alongside the effects of the central bank's decisions and actions, the government securities market reflected, in its turn, the influences from the above-expectations worsening of inflation developments and outlook, as well as from the marked deterioration of investor perception towards financial markets in the region, following the outbreak of the war in Ukraine and the imposition of international sanctions. Also relevant in terms of developments on this market were the Fed launching the policy rate hiking cycle, the consolidation of expectations on the earlier normalisation of the ECB's monetary policy, as well as the further fast-paced increase in key rates by central banks in the region.

Chart 3.3. Reference rates on the secondary market for government securities



Against this background, reference rates on the secondary market for government securities[44] further rose markedly across the entire maturity spectrum during Q1 overall, amid a fluctuating path, however, which steepened abruptly towards end-February, reaching eight-nine year highs. Furthermore, after a temporary subsequent correction, the upward path resumed towards the end of the quarter (Chart 3.3). As a result of these developments, the March average rates for 6- and 12-month securities rose versus December 2021 by up to 0.79 percentage points (to 4.25 percent and 4.40 percent respectively), while those for 3-, 5- and 10-year maturities added up to 1.13 percentage points (to 5.62 percent, 5.92 percent and 6.25 percent respectively). Consequently, the positive slope of the yield curve steepened again during the reported period overall, with the spread between 10Y and 1Y yields reaching a new peak for the past three years and a half.

On the primary market as well[45], the average accepted rates at the auctions stuck to an upward path during the first three months overall. Thus, compared to December 2021, they went up in March 2022 by 0.79 percentage points for securities with residual maturities of 4 and 6 years (to 5.67 percent and 5.98 percent respectively) and by 0.49 percentage points for 9- and 13-year securities (to 6.06 percent and 6.21 percent

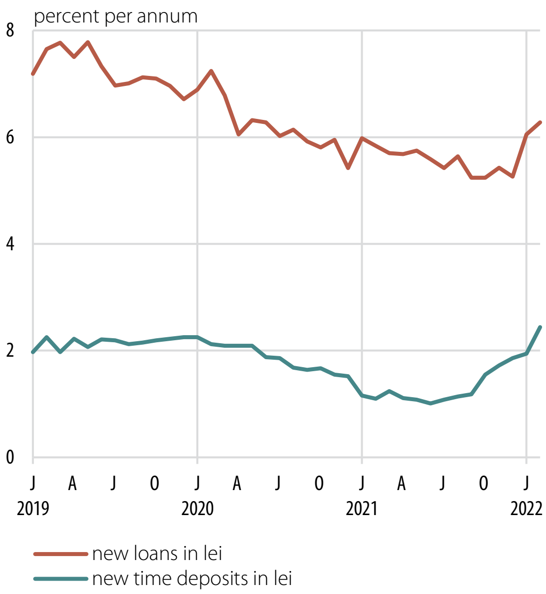
44 Bid-ask averages.

45 Moreover, the onset of March saw the issuance, under the "Tezaur" programme, of leu-denominated government securities for households with 1-, 3-, and 5-year maturities and rates of 4.50 percent, 5.00 percent and 5.35 percent respectively, while at the end of the month the MF issued government securities with the same maturities and rates of 4.55 percent, 5.05 percent and 5.40 percent.

In addition, during Q1, the MF issued on the external market both EUR-denominated securities, with maturities of 6 and 12 years, at rates of 2.1 percent and 3.8 percent respectively (totalling EUR 2.5 billion), and USD-denominated securities, with 5- and 10-year maturities and rates of 3.1 percent and 3.7 percent respectively (totalling USD 2.4 billion).

respectively). The average accepted rates for 6- and 12-month securities came in at 3.97 percent and 4.15 percent respectively in February[46]. The relative weakening of investors' appetite for this type of investments in the latter part of Q1 was also illustrated by developments in the ratio of the amounts of bids submitted to the announced volume. Specifically, after staying in January at a quasi-similar level to that recorded in December 2021[47], even amid the increase in the announced volume of issues, in February and especially in the first 10-day period of March, it posted a marked decline[48], followed by a slight recovery. During Q1 as a whole, this ratio stood however above the three-year low seen in 2021 Q4 (1.63 versus 1.32). At the same time, the ratio of the volume of issues to the announced volume climbed in 2022 Q1 to 1.01 from the three-year low of 0.79[49] recorded in the previous quarter[50]. In this context, the total volume of securities issued stood lei 3.2 billion higher, at lei 14.3 billion, while the value of net issues rose slightly, to lei 1.3 billion, even if the volume of maturing securities exceeded that in Q4.

Chart 3.4. Bank rates



Given the further increase in the monetary policy rate and in relevant interbank money market rates, as well as the reversal of the IRCC path in 2022 Q1, but also amid some changes in the composition of the credit flow, the average lending rate on new business to non-bank clients embarked on a firm uptrend at the beginning of this year. Specifically, it added 0.85 percentage points January through February overall versus the 2021 Q4 average, to an average of 6.16 percent. The advance was broad-based from the perspective of the two main customer categories. In particular, the average lending rate on new business to households witnessed a trend reversal, rising 0.60 percentage points against 2021 Q4, to an average of 6.72 percent. Behind this stood the hefty increase in the average interest rate on new consumer loans (up 0.44 percentage points, to 8.95 percent), but also their wider share in the flow of household credit, alongside the more moderate advance in the average interest rate on new housing loans, i.e. 0.09 percentage points, to 3.79 percent (Chart 3.4).

At the same time, the average lending rate on new business to non-financial corporations followed a steeper upward path, adding 0.92 percentage points versus

46 The previous accepted bids at the auctions for 6- and 12-month bills date back to October 2021 and August 2021 respectively.

47 Thus, it stood at 2.04 in January from 2.07 in December 2021.

48 Even in the context in which the scheduled volume of issues was reduced in March to lei 3.9 billion from lei 5.2 billion in the previous month.

49 During Q1, the MF fully rejected the bids submitted at four auctions for government securities, compared to seven in the prior quarter.

50 Amid the announced volume staying in 2022 Q1 at a quasi-similar level to that in 2021 Q4 (approximately lei 14 billion).

2021 Q4 and averaging out at 5.39 percent. The evolution was visible for both the average interest rate on low-value loans (below EUR 1 million equivalent), which went up 0.82 percentage points to 5.54 percent, and that on loans above EUR 1 million equivalent, which advanced 1.06 percentage points to 5.16 percent.

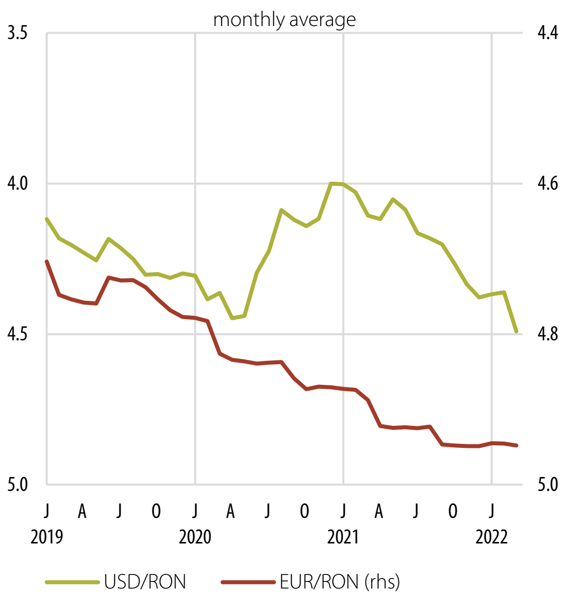
The average remuneration of new time deposits from non-bank clients stuck to a sturdy upward path (+0.48 percentage points against 2021 Q4), averaging out at 2.19 percent. Behind the advance stood the rises recorded in the case of both households (up 0.20 percentage points, to 1.50 percent) and non-financial corporations (up 0.55 percentage points, to an average of 2.40 percent).

2.2. Exchange rate and capital flows

The EUR/RON exchange rate posted a slight downward adjustment in January, before returning, but also sticking to the higher readings reached in the autumn of 2021 (Chart 3.5).

The EUR/RON declined in January 2022 to a level slightly below that prevailing in the previous four months, the downward adjustment being far more modest than those recorded in the region, amid renewed hikes in key rates implemented by central banks, conducive to an improvement in financial investors' sentiment towards CEE economies and financial markets. Nevertheless, developments were relatively volatile and uneven, reflecting also influences from the international financial market. The latter was marked by an increase in global risk appetite in the first part of the month[51], followed however by a more pronounced weakening. This occurred due to expectations for a stepped-up normalisation of the Fed's monetary policy conduct[52,53], but also amid heightening tensions surrounding the Russia-Ukraine geopolitical situation, which nonetheless affected to a small extent the exchange rates of currencies in the region.

Chart 3.5. Nominal exchange rate



The currency pair even posted a slight downtrend in the first part of February, in the context of an abatement of global financial market volatility, but also of the influences from the 0.50 percentage point hike in the NBR's key interest rate. The evolution was in tandem with those of the exchange rates of major

51 Brought about by the appeasement of fears about the economic impact of the Omicron variant of the coronavirus, the evolution also involved a slight depreciation of the US dollar against the euro.

52 Fuelled by the central bank's signals conveyed in its statement following the monetary policy meeting of 25-26 January.

53 Resulting also in the drop of the EUR/USD exchange rate to a 20-month low.

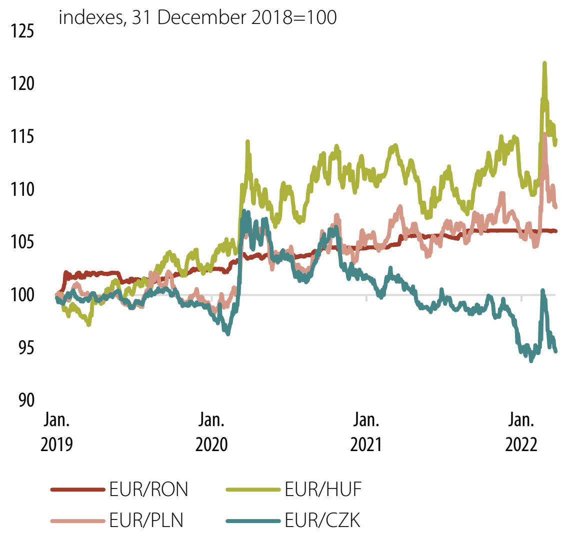
Table 3.1. Key financial account items

EUR million

	2 mos. 2021			2 mos. 2022		
	Net acquisition of financial assets*	Net incurrence of liabilities*	Net	Net acquisition of financial assets*	Net incurrence of liabilities*	Net
Financial account	-956	781	-1,737	4,403	5,961	-1,558
Direct investment	420	1,257	-836	245	1,173	-927
Portfolio investments	160	-48	208	-225	2,611	-2,835
Financial derivatives	31	x	31	26	x	26
Other investment	775	-428	1,204	2,965	2,178	787
– currency and deposits	604	-582	1,187	2,803	-125	2,928
– loans	3	-77	80	6	1,979	-1,973
– other	168	231	-63	156	324	-168
NBR's reserve assets, net	-2,343	0	-2,343	1,391	0	1,391

*) "+" increase/"-" decrease

Chart 3.6. Exchange rate developments on emerging markets in the region



Source: ECB, NBR

currencies in the region, which reflected, in turn, *inter alia* the expectations/central banks' decisions on further key rate increases during this period.

However, global risk aversion rose abruptly in the closing 10-day period of February, while investor sentiment vis-à-vis CEE markets worsened considerably amid the outbreak of the war in Ukraine and the imposition of international sanctions. Against this background, the US dollar strengthened more substantially versus the euro and the exchange rates of currencies in the region embarked suddenly on a sharply upward path. The EUR/RON posted an upward adjustment as well – reflecting *inter alia* the transitory increase in residents' demand for foreign currency[54] –, albeit far more modest. It was followed by a quasi-stabilisation at the new levels in the closing month of the quarter, also in the context of the NBR's liquidity management actions and the relative abatement of volatility on the international financial market[55,56] (Table 3.1).

The interbank forex market turnover picked up for the second consecutive quarter, while net demand for foreign currency reached a new historical high, on account of residents' transactions.

During Q1 overall, the domestic currency remained practically unchanged against the euro in nominal terms[57,58] and strengthened 4.0 percent in real terms. In relation to the US dollar, the leu weakened 2.5 percent in nominal terms and appreciated 1.4 percent in real terms, given the former's strengthening against the euro. Looking at the average annual exchange rate dynamics in 2022 Q1, the leu saw its depreciation versus the euro diminish slightly and its weakening against the US dollar step up significantly (Chart 3.6).

54 Manifest also in the case of foreign exchange offices.

55 Associated *inter alia* with the Fed launching the policy rate hiking cycle, but also with Russia and Ukraine starting rounds of talks.

56 In turn, the exchange rates of currencies in the region saw their increase come to a halt towards the end of the first 10-day period in March, before partly correcting their rises, following *inter alia* the central banks' actions/decisions.

57 Based on the March and December averages of the exchange rate.

58 During the same period, the forint and the zloty depreciated 2.4 percent and 2.9 percent respectively, whereas the Czech koruna strengthened 1.0 percent vis-à-vis the single currency.

2.3. Money and credit

Money

The particularly swift annual dynamics[59] of broad money (M3) continued to lose momentum January through February 2022, yet markedly slower than in 2021 Q4, averaging out at 15.2 percent[60], from 15.4 percent in the previous three months. The slacker monetary expansion was correlated, this time around too, mainly with the improved budget execution compared to the same year-ago period (Table 3.2).

The slight weakening of M3 dynamics was solely ascribable to the renewed decline during the period under review in the very fast pace of increase of narrow money (M1)[61], on account of both the evolution of currency in circulation[62] and the growth rate of overnight deposits, primarily leu-denominated deposits from households and non-financial corporations. On the other hand, the change in time deposits with a maturity of up to two years rebounded somewhat, as the marked re-acceleration in non-financial corporations' deposits, attributable mainly to the foreign currency component, was only partly offset in terms of impact by the larger annual decline of household deposits. Against this background, the share of M1 in M3 discontinued its upward trend, falling in February to 71.8 percent, from 72.1 percent at end-2021, a peak of the post-February 1994 period (Chart 3.7).

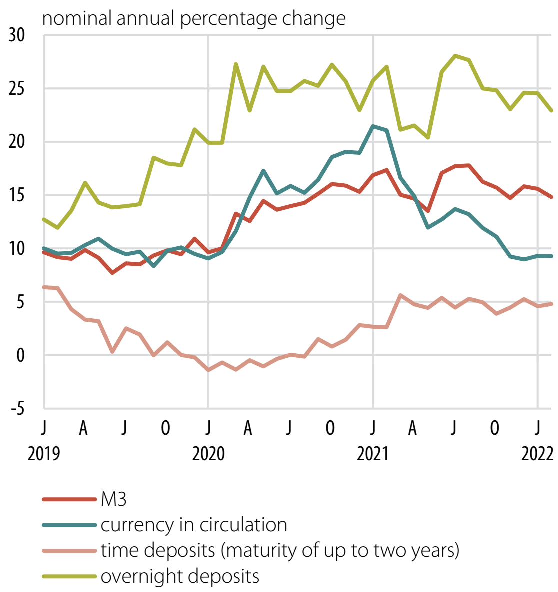
The breakdown by holder shows that the slowdown in annual growth of broad money was driven by the rate of change of household deposits, which continued to decline, hitting a 5-year low[63]. This occurred despite the recovery in the dynamics of disposable income in this period – mainly on the back of higher social transfers[64] – and the lower rate of change of households' holdings of government

Table 3.2. Annual growth rates of M3 and its components

nominal percentage change

	2021				2022	
	I	II	III	IV	Jan.	Feb.
	quarterly average growth					
M3	16.4	15.1	17.2	15.4	15.6	14.8
M1	23.3	20.2	23.1	20.3	20.5	19.3
Currency in circulation	19.7	13.2	12.9	9.8	9.3	9.3
Overnight deposits	24.6	22.8	26.9	24.1	24.5	22.9
Time deposits (maturity of up to two years)	3.6	4.9	4.9	4.5	4.6	4.8

Chart 3.7. Main broad money components



59 Unless otherwise indicated, percentage changes in this section refer to the average of annual growth rates in nominal terms.

60 In real terms, the slowdown in the annual growth of broad money was sharper, given the higher annual inflation rate. Its average dropped to a 2-year low of 6.2 percent in January-February, from 6.9 percent in 2021 Q4.

61 Its quarterly average thus fell to a 2-year low.

62 The average annual growth rate of currency in circulation touched a 10-quarter low.

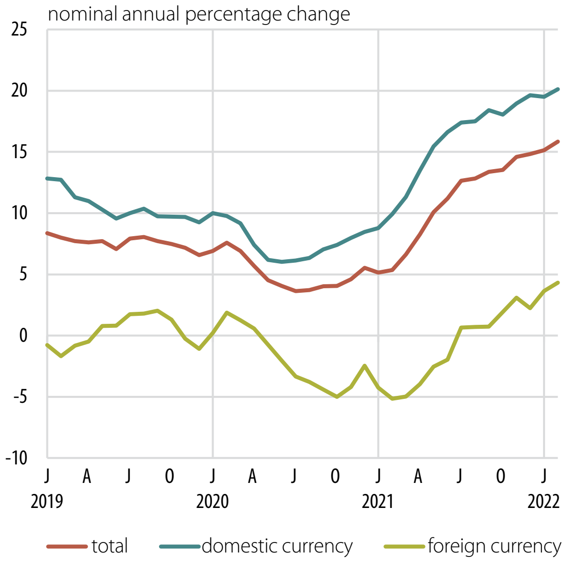
63 Assessment based on quarterly data.

64 Given the increase, as of 1 January 2022, in the pension point by 10 percent, in the minimum pension by 25 percent and in state child benefits, as well as the granting of one-off benefits to certain social groups.

securities. The impact of these developments in the dynamics of household deposits was only partly countered by the renewed acceleration of the particularly brisk growth in non-financial corporations' deposits, most likely in correlation with the dynamics of flows from EU funds and the developments in credit to the corporate sector.

As for the counterparts of M3, the slight deceleration in its growth owed solely to a further slowdown in the dynamics of banks' holdings of government securities, which thus reached an 11-quarter low. Conversely, expansionary influences came from: (i) a further pick-up in the growth rate of credit to the private sector, (ii) a deepening in negative territory of the rate of change of long-term financial liabilities[65], and (iii) the markedly swifter rate of increase of the banking system's net foreign assets[66], the impact of which was, however, mostly offset by a renewed increase in the annual growth in central government deposits[67].

Chart 3.8. Credit to the private sector by currency



Credit to the private sector

The double-digit annual growth rate of credit to the private sector picked up further in the first two months of 2022 Q1 as a whole, coming in at 15.5 percent[68] against 14.3 percent in 2021 Q4[69]. This time too, the evolution was driven mainly by the leu-denominated component, which kept stepping up, to 19.8 percent in the reviewed period (an approximately 6-year high), from 18.9 percent in the previous three months, due mainly to the visibly faster dynamics of funds granted to financial corporations in the form of lines of credit[70]. A positive influence continued to come from foreign currency lending (expressed in EUR), whose rate of change was further headed upwards, posting a nine-and-a-half-year high[71]. Against this background, the share of domestic currency loans in total private sector credit stuck to a slightly upward path, reaching 72.5 percent in February (Chart 3.8).

More clearly over this period, the quicker rise in credit to the private sector was chiefly ascribed to loans to non-financial corporations, whose annual growth reached a

65 Capital accounts included.

66 An influence in the same direction also came from the annual contraction in the central government's leu-denominated deposits, attributable however to a base effect.

67 January through February 2022, the Ministry of Finance received pre-financing in amount of EUR 1.9 billion under the MRR line of credit opened with the EC and issued on the international market Eurobonds in US dollars (USD 2.4 billion) and euro (EUR 2.5 billion); at the same time, USD-denominated maturing bonds of approximately USD 2 billion were repaid in the reported period.

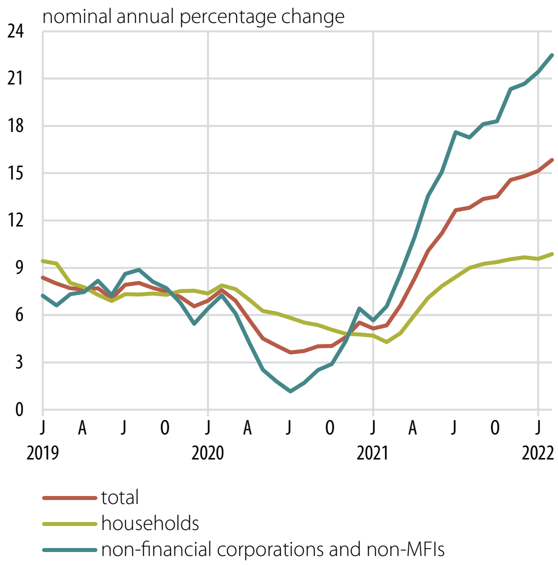
68 A 13-year high.

69 In real terms as well, the average annual pace of increase of credit to the private sector saw a renewed slight acceleration January through February to reach 6.5 percent versus 5.9 percent in the previous three months, even amid the faster annual inflation rate.

70 Revolving loans and overdraft loans.

71 Assessment based on quarterly data.

Chart 3.9. Credit to the private sector by institutional sector



13-year high[72]. The pick-up was driven this time equally by the local currency component – whose particularly high dynamics continued to accelerate on the back of short-term loans[73], even without a significant contribution from the "IMM Invest Romania" programme[74] – and by the foreign currency component (expressed in euro), which gathered momentum to a record high of the post-2010 period.

At the same time, the increase in the annual dynamics of household loans slowed down further[75]. The evolution mainly reflected the behaviour of leu-denominated loans, whose double-digit annual growth rate continued to step up, yet only marginally. This occurred as the impact of the further uptrend of the change in consumer credit and other loans was countered almost entirely by the mild decrease in the very high dynamics of loans for house purchase, also amid the weakening contribution of the "New Home" programme. Furthermore, foreign currency-denominated credit (expressed in euro) saw its substantial annual contraction remain unchanged (Chart 3.9).

72 As a quarterly average.

73 They include leu-denominated revolving loans and overdraft loans, the dynamics of which surged January through February 2022.

74 A government support programme approved in the context of the pandemic crisis through GEO No. 42/2020 and supplemented by GEO No. 89/2020, whereby the state guarantees up to 90 percent of the amount of some leu-denominated loans to SMEs and micro-enterprises and subsidises the interest for a period of eight months after the loan origination date and other financing costs (management and risk fees) over the entire term of the guaranteed loan under the programme. This government support scheme was extended until 30 June 2022 (from 31 December 2021). For 2022, the total guarantee ceiling under the "IMM Invest Romania" programme amounts to lei 7.5 billion, of which lei 2.5 billion for the "Agro IMM Invest" sub-programme.

75 Hitting, however, a 15-quarter high.

4. Inflation outlook

Russia's invasion of Ukraine entailed broad-based reconfigurations of the international economic environment surrounded by exceptional uncertainty. In the case of Romania, direct trade and financial relations with Russia and Ukraine are relatively low in magnitude, yet the indirect effects of the invasion, such as those propagated via global prices of (energy, agri-food) commodities, confidence or economic activity of trading partners, could be significant, conditional also on the future evolution of the armed conflict. Over the short term, the annual CPI inflation rate is forecasted to rise until June, when it is seen peaking at 14.2 percent. This will occur amid pressures from production costs, with an impact on the annual core inflation rate that was substantially revised upwards throughout the projection interval. It will continue to climb until the end of this year, before embarking on a downward path, as a result of the adverse impact of recent hikes in production costs fading out gradually. Despite the introduction of a new capping scheme for electricity and natural gas prices, they will continue to exert significant inflationary pressures throughout the projection interval amid a narrower coverage of the new support measures and their expiry in April 2023. Subsequently, these price increases are foreseen to alleviate somewhat, under the assumption of a gradual, relative relief of market strains in the medium term. Therefore, the annual growth rate of the CPI will gradually lose momentum starting 2022 Q3, with the downward path being expected to be discontinued only temporarily in 2023 Q2. Specifically, the annual CPI inflation rate is projected to come in at 12.5 percent at end-2022, 6.7 percent at end-2023 and 6.2 percent at the projection horizon, i.e. 2024 Q1. The balance of risks to the annual inflation rate projection is assessed as being further tilted to the upside against the path shown in the baseline scenario.

Baseline scenario

4.1. External assumptions

Following Russia's invasion of Ukraine, uncertainty about the future economic activity of trading partners saw an upsurge. Confidence worsened sharply. There was also an increase in prices of natural gas, oil, coal and agri-food commodities. In addition, in this context, disruptions in global value chains are likely to intensify again, yet in the medium term, insofar as supply reacts to higher prices, disruptions are assessed to be resorbed gradually. A major factor of uncertainty is the magnitude and persistence of direct and indirect effects that sanctions imposed on Russia will have on the EU economies, given the trade and financial ties, including the overall high reliance of

Member States on Russia's gas and oil, and the substantial presence of some European banks in Russia. There may be also additional pressures on European countries' fiscal positions amid increased spending to mitigate the impact of higher energy prices on consumers, to cover humanitarian needs for refugees[76] and to provide defence support. Some assessments on the impact of the war in Ukraine on Romania's economy are set out in the Box below. An additional element of uncertainty, albeit its relevance has significantly diminished, is a possible resurgence of the pandemic.

Table 4.1. Expectations on the developments in external variables

annual averages

	2022	2023
Effective EU economic growth (%)	3.6	2.6
Annual inflation rate in the euro area (%)	5.6	2.1
Annual inflation rate in the euro area, excluding energy (%)	3.1	2.1
Annual CPI inflation rate in the USA (%)	6.1	2.8
3M EURIBOR (% per annum)	-0.4	0.3
USD/EUR exchange rate	1.11	1.15
Brent oil price (USD/barrel)	99.5	91.2

Source: NBR assumptions based on data provided by the European Commission, ECB, Consensus Economics and Bloomberg

External demand (EU real effective GDP) exceeded its pre-pandemic level already in 2021 Q3 and the economies of Romania's trading partners reported overall favourable developments in 2021 Q4 as well (Table 4.1). For 2022, however, the EU real effective GDP growth was revised downwards compared to the previous *Report*, amid the suboptimal performance anticipated for H1. The latter occurs amid the difficulties facing companies, associated with the sharp rise in prices of energy and some commodities, as well as in the context of plummeting consumer and corporate confidence. For 2023, the dynamics are projected to remain almost unchanged against the previous forecast, under the assumption that the largest economic effects of the war in Ukraine will occur this year.

Against this background, the external output gap was revised downwards compared to the previous *Inflation Report*, being estimated to close one quarter later, i.e. 2022 Q3. The international trade and financial sanctions on Russia, as well as the widespread bottlenecks in global supply chains will probably dampen international trade this year. However, assuming a gradual easing of effects of the armed conflict, the output gap profile points to an improvement in the traction of external demand on Romanian companies' exports starting with 2022 H2 and over the next year. Given the current context, the assessment of EU real effective GDP gap is, nonetheless, characterised by elevated uncertainty.

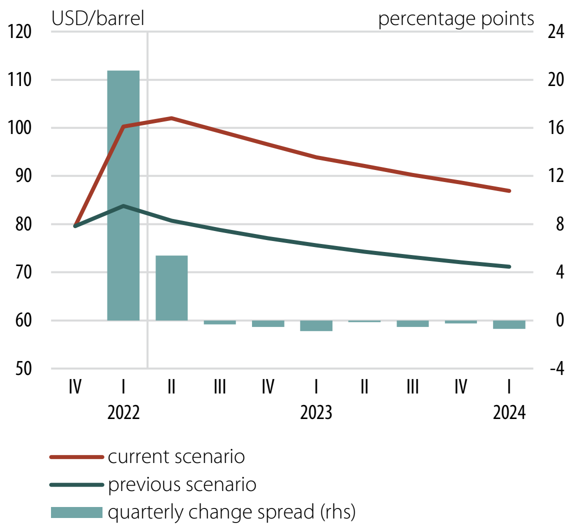
The annual HICP inflation rate in the euro area continued its fast-paced growth amid high energy prices, fuelled by Russia's invasion of Ukraine, with a strong impact on agri-food prices as well. Furthermore, short-term inflationary pressures picked up significant steam, especially on the back of oil and natural gas price dynamics. Specifically, the forecasted annual HICP inflation rate was again revised upwards to 6.2 percent in 2022 Q2, i.e. a peak of the forecast interval. Starting in 2022 Q3, the annual HICP inflation rate in the euro area is foreseen to embark on a downward path and decline to less than 2 percent in 2023 Q3, remaining below this threshold at

[76] These pressures will be partly taken over via joint effort by the European Commission through financial support programmes on various conflict-related issues.

the projection horizon (1.8 percent in 2024 Q1). These dynamics reflect base effects, assuming a moderation of the action of the factors that have recently sent energy prices higher, and a downward path in oil futures prices. Compared to the previous *Inflation Report*, the forecast of the annual HICP inflation rate excluding energy was, in turn, revised upwards, especially for this year (1 percentage point and 0.2 percentage points for 2022 and 2023 respectively). The annual HICP inflation rate excluding energy is estimated to peak at 3.5 percent in 2022 Q2, before heading downwards, to 2 percent at the projection horizon.

Given the sharply upward course of inflation rate, during the projection interval the real 3M EURIBOR rate is seen having a stimulative nature, with a stronger intensity in the near run. Against the background of mounting inflation and the ECB's presumed monetary policy stance, the nominal 3M EURIBOR rate is anticipated to re-enter positive territory in 2023 H1.

Chart 4.1. Brent oil price scenario



Source: U.S. Energy Information Administration, NBR assumptions based on Bloomberg data

The path of the EUR/USD exchange rate continues to be surrounded by sizeable uncertainty. On the backdrop of the armed conflict in Ukraine and the quicker pace of monetary policy normalisation pursued by the Fed compared to the ECB, the forecast anticipates a depreciation of the euro versus the US dollar over the short term, ahead of an appreciation starting in 2022 Q3 until the projection horizon.

The scenario for the Brent oil price is based on futures prices and foresees a rise in 2022 Q2 as a whole to around USD 102/barrel, amid Russia's invasion of Ukraine, followed by a downward path throughout the projection interval, nearing USD 87/barrel at the forecast horizon (Chart 4.1). On the supply side, the determinants include the gradual release of oil from emergency reserves of member countries of the International Energy Agency, but also the elevated uncertainty surrounding oil imports from Russia, *inter alia* from the perspective of the new sanctions imposed by EU Member States, the final form of which is unknown by the cut-off date of this *Report*. On the demand side, efforts are being undertaken to reduce the reliance of European countries and their partners on Russia's oil and, in the short term, mobility restrictions in some parts of China are severely tightened. The projection of future developments in oil prices is further surrounded by elevated uncertainty.

Current assessments of the impact of the war in Ukraine on the Romanian economy

Russia's invasion of Ukraine has unleashed in Europe an unprecedented humanitarian crisis since the end of World War II. Moreover, the international economic environment has fallen under the spectrum of adverse developments associated with the ongoing military conflict. Based on the information available so far, the macroeconomic impact of the Russia-Ukraine war is surrounded by multiple unknowns and a substantial reconfiguration of international economic conditions cannot be ruled out, affecting also the domestic economic environment.

This box aims to take stock of possible transmission channels of external shocks generated by warfare. Moreover, in this *Report*, a major novelty refers precisely to measuring the effects of the military conflict and the escalating geopolitical tensions. The main assumptions adopted in the baseline scenario are also presented in this context. In addition, considering the unusual level of uncertainty (amid the largest armed conflict waged in Europe over the past decades), this box also outlines the coordinates of an adverse scenario on alternative geopolitical developments to those included in the baseline scenario.

Chart A. Possible implications of Russia's invasion of Ukraine

Source: NBR assessments

Relatively weak direct effects on Romania, but potential strong indirect effects

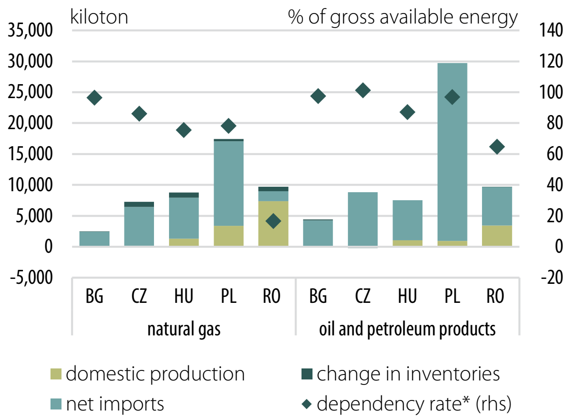
Romania has relatively limited direct trade and financial relations with Russia and Ukraine. However, the indirect effects could be substantial, especially in the event of a sustained worsening of the geopolitical situation (Chart A).

In the current context, adverse shocks may propagate through several channels. The most important of them are briefly described below.

Trade channel. Romania's direct trade ties with Russia and Ukraine are limited. According to NBR data, in 2021, direct imports (fob) from the two countries accounted for 4.2 percent of total domestic imports, whereas Romania's exports (fob) to Russia and Ukraine made up 2.2 percent of total exports. These values indicate only the direct exposure of Romania to the two economies, without taking into account the possible indirect exposures from trade with intermediaries.

At the same time, more substantial adverse effects may become visible for imports of mineral fuels, lubricants and related materials. According to Eurostat data, approximately 46 percent of Romania's imports of natural gas come directly from Russia, whereas the remaining imports of such products are conducted through intermediaries such as Bulgaria and Hungary, while the main exposure is, in fact, still to Russia. Nevertheless, Romania ranks among the European countries with the lowest dependence on imports of natural gas from Russia, as it covers more than 70 percent of natural gas consumption from domestic production. A relatively similar situation is also seen for Romania's exposure to imports of oil and petroleum products, yet the dependence of Romania's consumption on imports is higher in this case (Chart B).

Chart B. Dependence of energy consumption on imports in 2020



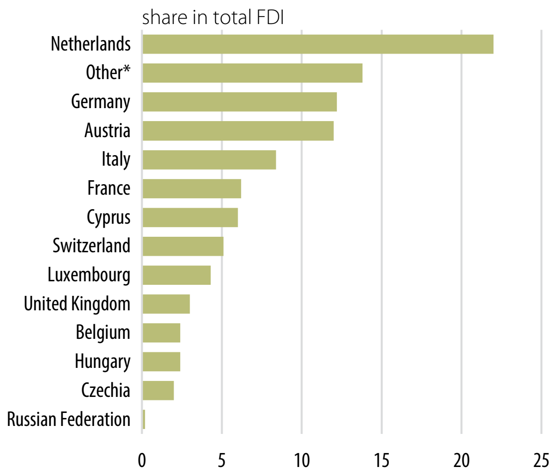
*) calculated as a share of net imports in gross available energy at national level, values above 100 percent could indicate the replenishing of stocks

Source: Eurostat Energy balances, NBR calculations

However, indirect effects could be stronger. Specifically, in the short run, the following are expected: (i) the persistence of the energy crisis, (ii) the rise in prices of non-energy commodities, particularly agri-food commodities (e.g., cereals, oilseeds, a.s.o.), (iii) the renewed worsening in the semiconductor crisis, amid the greater shortage of certain metals and (iv) other disruptions in global value chains, also on the distribution side, which may weigh on international trade flows. These factors may have an additional impact on the economic activity of Romania's trading partners, while also entailing a lower demand for domestic exports.

Financial channel. Bank exposures to Russia are limited. No direct equity holdings in banks in Romania originate in Russia. By contrast, some banking groups also operating in Romania were identified to have a higher presence in Russia. Thus, the transmission of risks from these groups to their subsidiaries in Romania is not excluded. In addition, a risk requiring close monitoring is that related to cybersecurity.

Chart C. FDI stock in Romania by country of origin in 2020



*) countries with shares in total FDI below 2 percent, except for the Russian Federation

Source: NBR, NBR calculations

As for foreign direct investment (FDI), the share of FDI having Russia as a country of origin is low. Specifically, based on the immediate investor country distribution, about 0.2 percent of the FDI stock in 2020 comes from Russia (Chart C). This share proved to be relatively stable over time.

However, the indirect effects manifest through the financial channel are expected to be more significant and may lead to declines in investment flows to Romania. These developments could be ascribed to the overlapping of several factors, such as the surge in production costs, the increase in risk aversion, also as a result of the proximity of the military conflict to Romania's border, or the emergence of logistical difficulties. In this context, certain investment projects (private ones, in particular) could be postponed.

Confidence channel. To the above-mentioned factors adds the erosion of investor confidence, caused by the substantial increase in the uncertainty surrounding the macroeconomic landscape. In this vein, the overall investment environment is anticipated to deteriorate, due to the worsening of economic sentiment in Europe, which is stronger in the countries lying in the geographical proximity of the armed conflict area.

Migration channel. Overall, a small number of Ukrainian refugees are expected to settle in Romania and actively contribute to the labour market, given also the particular structure of the flow of migrants, mostly women and children. Since the outbreak of the geopolitical crisis, most Ukrainian refugees have only transited the territory of Romania.

Implications for the macroeconomic coordinates in the baseline scenario – adverse divergent effects on the inflation rate and economic growth

Russia's invasion of Ukraine and the associated sanctions are assessed to have triggered a sizeable supply-side shock globally, with divergent effects on economic activity (downturn) and the inflation rate (increase), expected to be manifest primarily during the current year. Afterwards, starting in 2023, the baseline scenario assumes a lower economic impact of the military conflict.

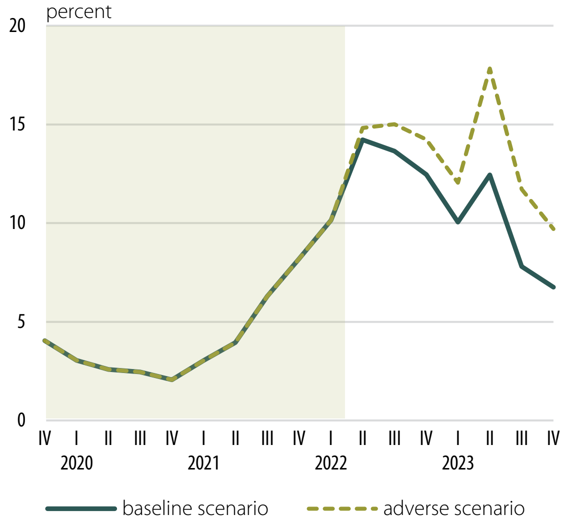
The direct and indirect effects on economic growth are estimated to be relatively low (of up to -1 percentage point), given that, as previously highlighted, Romania ranks among the EU Member States the least dependent on energy imports from Russia. As far as the impact on the CPI inflation rate is concerned, the pass-through of the higher energy prices will be limited over 2022 by natural gas and electricity price caps for household consumers and certain non-household consumers, effective until March 2023 (at this horizon, energy markets are assumed to have re-entered a process of gradual normalisation). Under the circumstances, the main inflationary pressures induced by the war in Ukraine are linked with the hikes in motor fuel prices, on the back of surging crude oil prices (direct pass-through into the CPI index, as well as indirect feed-through via production costs for most final consumer goods), and in agri-food commodity prices, reflected chiefly by the processed food component of core inflation (indirect pass-through via production costs). It is difficult to gauge the total impact, given that the current evolution of the CPI inflation rate and that envisaged in the coming periods are the joint result of the energy crisis unleashed in mid-2021 and the adverse developments in commodity (energy and agri-food) markets brought about by the Russia-Ukraine war.

Potentially wider adverse effects in the event of more severe assumptions associated with the economic implications of the war

Given the exceptional situation, characterised by extremely high uncertainty, and the unique nature of the shock over the past decades, the economic implications of the conflict may relatively easily escalate. Under the circumstances, an adverse scenario assessing the results of more severe assumptions was prepared.

Thus, an adverse scenario does not rule out: (i) larger increases in commodity (energy and agri-food) prices, amid the discontinuation of Russian gas supplies to EU countries, the ban on Russian oil imports imposed by EU Member States and the significant decline in exports of cereals from Russia and Ukraine over the next two years, (ii) the persistence of uncertainty at high levels, comparable to those recorded at the outbreak of the war, conducive to a sizeable drop in consumption and investment, and (iii) the significantly stronger economic slowdown in Romania's trading partners than envisaged in the baseline scenario (-4.5 percentage points of GDP, cumulative figure for 2022-2023), amid the high dependence of several EU economies on Russian oil and natural gas supplies, the more elevated uncertainty and the tighter financial conditions.

Chart D. Annual CPI inflation rate in the adverse scenario versus the baseline scenario



Source: NBR calculations and assessments

In this context, the impact on domestic economic activity would be significant, real GDP being expected to remain close to the level posted in 2021, ahead of relatively low economic growth in 2023 (a cumulative effect of -4.1 percentage points of GDP in 2022-2023 versus the baseline scenario, comparable to that estimated for the major trading partners).

As far as Romania is concerned, the direct effects are anticipated to be lower as a result of the smaller energy exposure than those of its main trading partners, yet the effects transmitted via indirect channels, primarily through that of economic agents' confidence, are envisaged to be more substantial owing to the domestic vulnerabilities associated with twin deficits (fiscal and current account deficits) that have built up in the Romanian economy over the past years. Against the background of stronger inflationary pressures from energy prices and agri-food commodity prices, only partly offset by the disinflationary pressures from aggregate demand, the annual CPI inflation rate would run 4.7 percentage point higher than that in the baseline scenario, cumulative value for 2022-2023[77] (Chart D). The inflationary impact would be amplified by the higher EUR/RON exchange rate, amid the additional increase in investors' risk aversion as compared with the baseline scenario, as well as by the effects transmitted via economic agents' expectations.

References

European Central Bank, *ECB staff macroeconomic projections for the euro area*, March 2022

European Commission, *Eurostat energy balances*, April 2022

MUFG's Capital Markets Strategy, "Russia-Ukraine: A brief assessment & update on the crisis", March 2022

[77] The impact is calculated by comparing the annual growth rates envisaged for December.

National Bank of Romania, *Foreign Direct Investment in Romania in 2020*, 2021

OECD, "Economic and social impacts and policy implications of the war in Ukraine", *Economic Outlook*, March 2022

Orlova, T., McFee, I., *The economic implications of Russia's full-scale invasion* [webinar], *Oxford Economics*, 2022

United Nations, *Global impact of war in Ukraine on food, energy and finance systems*, Brief No. 1, April 2022

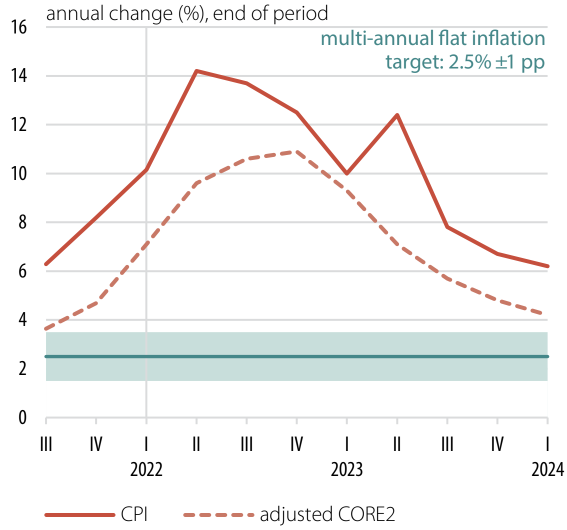
4.2. Inflation outlook

In the short term, the annual CPI inflation rate is expected to rise until June, up to a peak of 14.2 percent. This will be ascribable to pressures from production costs (for energy, commodities, transport), recently exacerbated by Russia's invasion of Ukraine, which caused them to pass through relatively fast into the prices of goods and services included in the adjusted CORE2 index. Moreover, CPI dynamics will also reflect the increase in electricity and natural gas prices in April 2022, given the expiry of the previous measures to compensate and cap prices and the shift to the new scheme[78], which envisages stricter eligibility criteria. However, the intensity of these pressures is foreseen to diminish in the medium term, as the effects associated with the war are presumed to fade out. In the absence of other information, the macroeconomic projection includes the assumption that electricity and natural gas prices will return to updated contractual levels (determined based on liberalised market mechanisms) in April 2023, which will imply significant increases at this horizon. Subsequently however, prices are anticipated to decrease, once suppliers make their regular price updates, which will reflect the developments on the wholesale energy markets, assuming their relative gradual easing in the medium term. Hence, the annual CPI dynamics will decline progressively starting with 2022 Q3, the downtrend being only temporarily interrupted in 2023 Q2, when the legislated capping measures expire. Looking at core inflation, the unfavourable impact of the recent hikes in production costs is expected to progressively fade out as well, leading to a decline in the annual rate of this component in the second part of the projection interval. The annual CPI inflation rate is foreseen at 12.5 percent at end-2022, 6.7 percent in December 2023, and 6.2 percent at the projection horizon, i.e. 2024 Q1 (Chart 4.2, Table 4.2). The contribution of energy[79] is anticipated at 3.7 percentage points and 2.8 percentage points respectively at the end of the two years. The levels are lower for the end of this year and, respectively, higher for the end of the next year compared to those projected in the previous *Inflation Report*. However, a significant decrease in headline inflation is forecasted immediately after the projection horizon, due to the increases in electricity and natural gas prices in April 2023 dropping out of the calculation, which has an impact that persists for 12 months at the level of the annual inflation rate.

78 From November 2021 to March 2022, these prices were influenced by the provisions of GEO No. 118/2021 and GEO No. 3/2022. Subsequently, the support measures were amended and extended by GEO No. 27/2022 until March 2023.

79 Fuels, electricity and natural gas.

Chart 4.2. CPI and adjusted CORE2 inflation forecasts



Source: NIS, NBR projection

Table 4.2. The annual CPI and adjusted CORE2 inflation in the baseline scenario

annual change (%); end of period

	2022			2023				2024
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Central target	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
CPI projection	14.2	13.7	12.5	10.0	12.4	7.8	6.7	6.2
CPI projection*	14.3	13.8	12.7	10.0	11.9	7.3	6.3	5.7
Adjusted CORE2 projection	9.6	10.6	10.9	9.3	7.1	5.7	4.8	4.2

*) calculated at constant taxes

Compared to the values projected in the February 2022 *Inflation Report*, the annual CPI dynamics are seen at higher readings for the entire forecast interval. In the first part of the projection period, a significant contributor to the revision is core inflation, especially the processed food component and, to a lesser extent, non-energy exogenous components (VFE, administered prices, tobacco, alcohol). The fuel price inflation rate was revised upwards, amid the fast hikes in crude oil prices, yet, for the energy group overall, the revision was downwards, helped by the extension of the price capping scheme for electricity and natural gas for household consumers. Starting with 2023 Q2 and until the forecast horizon (2024 Q1), the revision of CPI dynamics is mainly driven by the energy component, while the additional contribution of core inflation is on the decline.

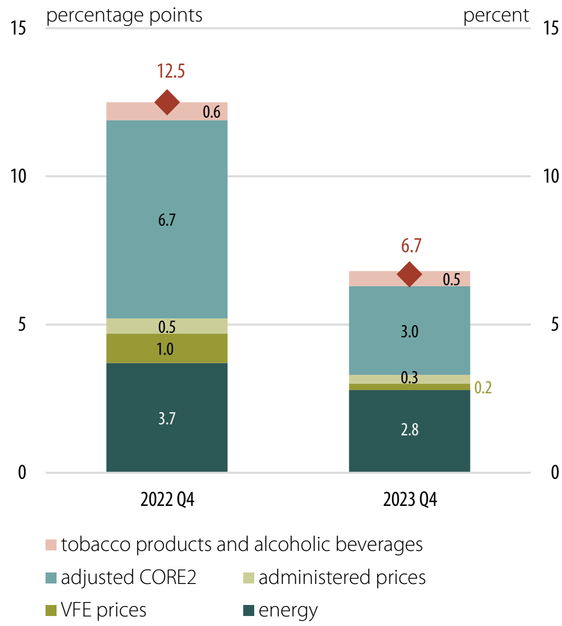
The annual core inflation rate will remain on an upward path until end-2022, when it is seen reaching 10.9 percent, primarily as a result of production costs posting significant increases over the last quarters, which are assumed to have persistent influences. These increases have been particularly strong for agri-food commodity and energy costs, whose pass-through into final prices has accelerated recently, more visibly in the case of processed food. To the aforementioned influences add the rise in inflation expectations and the considerable upward revision of the growth rate of prices of imported goods[80]. However, a gradual alleviation of production cost pressures is anticipated over the projection interval, assuming a stabilisation and, subsequently, a downward correction of agri-food commodity prices and the easing of energy markets in the medium term, respectively. Furthermore, the positive output gap is foreseen to gradually close, while the growth rate of prices of imported goods will slow down. Under the impact of these factors, the monthly dynamics of adjusted CORE2 will decrease successively over the projection horizon. As a result, the annual core inflation rate is forecasted to decline from the beginning of next year, the indicator showing the dissipation of recent shocks with a lag specific to its calculation method (based on the last 12 monthly values). This is anticipated to reach 4.8 percent for December 2023 and 4.2 percent for the projection horizon, i.e. 2024 Q1.

80 Approximated based on euro area HICP inflation excluding energy. In annual terms, it climbed to 4.2 percent in April 2022, from 0.7 percent in April 2021.

Compared to the February 2022 *Inflation Report*, the annual adjusted CORE2 inflation rate was revised substantially upwards over the entire projection interval. The short-term upward adjustment mainly derives from stronger pressures on production costs, the multitude of supply-side shocks at a global level favouring the faster-than-anticipated transmission of these hikes into the prices of goods and services. Inflation expectations and the annual inflation rate in the euro area also saw upward revisions (over the whole projection interval, albeit higher in the short term). Conversely, inflationary pressures stemming from excess demand were revised yet again downwards, to close-to-neutral values[81].

The cumulative contribution of inflation components beyond the scope of monetary policy – namely administered prices, electricity and natural gas prices, volatile food prices (VFE), fuel prices and tobacco product and alcoholic beverage prices – to the annual CPI inflation rate is forecasted at 5.7 percentage points for end-2022 and at 3.8 percentage points for December 2023 (accounting for 45 percent and 56 percent, respectively, of the annual inflation rate) (Chart 4.3). The values are revised downwards and upwards, respectively, compared to the previous *Inflation Report*, primarily as a result of the extension of the price capping measures for electricity and natural gas and, implicitly, of the postponement of their expiry.

Chart 4.3. Components' contribution to annual CPI inflation rate*



*) end of period; values have been rounded off to one decimal place

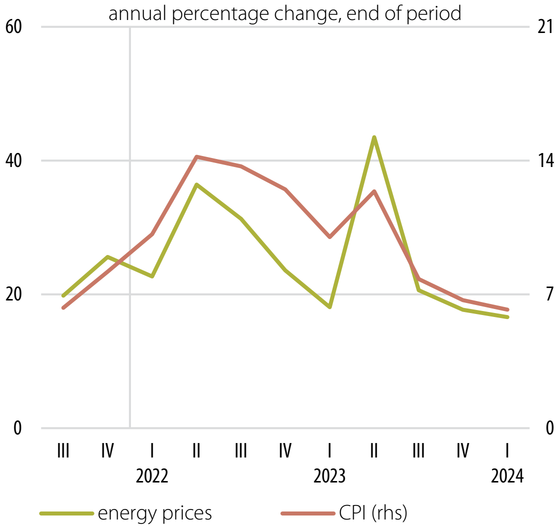
Source: NIS, NBR projections

For end-2022, a larger inflationary contribution also stems from fuel prices, reflecting the recent hike in crude oil prices[82], along with the sharp rise in firewood prices. Although marked by high uncertainty, the trajectory of futures prices for the second part of the projection interval signals a significant slowdown in annual fuel price inflation, starting with 2023 Q1 until the end of the projection interval. In this context, energy price hikes are forecasted at 23.6 percent for the end of this year and 17.7 percent for the end of next year (Chart 4.4). A moderate deceleration of the annual dynamics is envisaged only towards the end of the projection interval, on account of the statistical base effects and assuming a fading-out of the current inflationary pressures. Compared to the previous *Inflation Report*, the annual growth rate of energy prices for end-2022 was revised downwards by -12.9 percentage points, whereas for December 2023 it was revised upwards by +16.2 percentage points, primarily due to the one-year delay of the expiry of the capping on electricity and natural gas prices.

81 For further details, see Section 4.3. Demand pressures in the current period and over the projection interval.

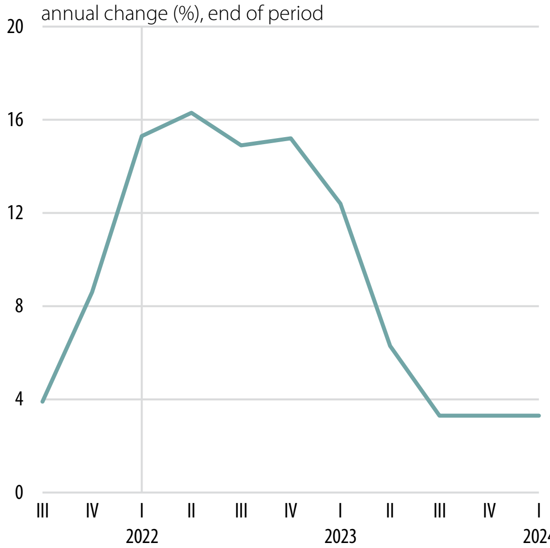
82 As a result of the high uncertainty surrounding future economic developments and the major deterioration in financial market confidence spurred by Russia's invasion of Ukraine.

Chart 4.4. Annual CPI inflation and energy price inflation



Source: NIS, NBR projections

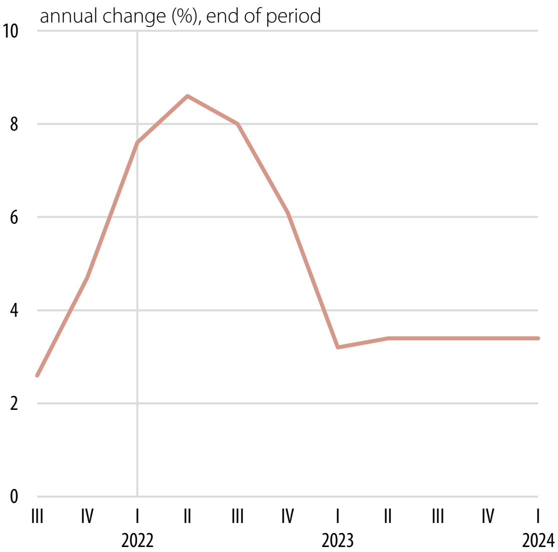
Chart 4.5. VFE price inflation



Source: NIS, NBR projection

The annual dynamics of volatile food prices (VFE) are anticipated at 15.2 percent and 3.3 percent at the end of 2022 and 2023 respectively (Chart 4.5). Compared to the previous forecast, significantly more unfavourable developments are foreseen in the course of this year (upward revision of 10.5 percentage points for end-2022), following the rise in prices of imported goods and in the costs of domestic producers (for fertilisers and energy). The path was built on the assumption of a normal harvest in both years of the projection[83].

Chart 4.6. Administered price inflation



Source: NIS, NBR projection

The scenario for the administered price group[84] is mainly based on historical developments and foresees annual increases in these prices of 6.1 percent and 3.4 percent for end-2022 and end-2023 respectively (Chart 4.6). For this year, the forecast reflects the recent rise in production costs (especially for energy, transport), the end-2022 value being revised upwards by 2.0 percentage points from the previous *Inflation Report* (particularly as a result of the larger increases in the prices of water, sewerage and sanitation recorded in the first part of the year). For the end of next year, the reassessment was marginal (-0.1 percentage points). The annual dynamics of tobacco product and alcoholic beverage prices are projected at 6.8 percent at the end of the current year and 6.2 percent at end-2023, the path being shaped mainly by the increases in excise duties provided by legislation, but also considering

83 Relative to its multiannual averages.

84 The main products included in this group are heating, water, sewerage, sanitation and medicines.

the behaviour of companies in this field as regards the final price adjustment. Compared to the previous projection, the levels were more visibly revised upwards for the current year (by 2.6 percentage points in December 2022), following the incorporation of a price hike in 2022 Q2 that was unjustified by adjustments in the excise duties on tobacco products and, thus, previously unexpected, and marginally downwards for next year (by -0.1 percentage points in December 2023).

4.3. Demand pressures in the current period and over the projection interval[85]

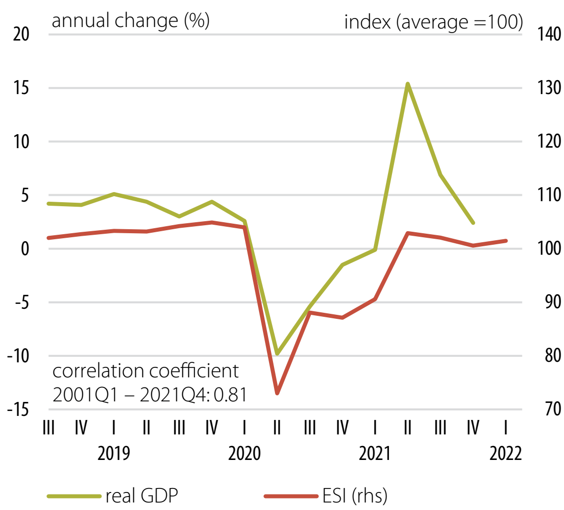
Output gap

In 2021 Q4, GDP saw a slight contraction (-0.1 percent[86]) against the previous quarter, below the expectations in the prior *Inflation Report*. These dynamics are relatively difficult to explain, given the significant positive contribution from domestic demand, only partially counterbalanced by the negative contribution from net exports. However, the statistical discrepancy and the change in inventories[87] made a cumulative contribution of -2.5 percentage points.

In 2021 as a whole, real GDP went up by 5.9 percent, i.e. below the forecast in the previous forecasting round. The GDP advance owed to the robust domestic absorption (especially to final consumption), whereas net exports made a negative contribution. Economic growth in 2021 benefited from base effects and carry-over effects, given the plunge in real GDP in 2020, amid the start of the COVID-19 pandemic, and the fast-paced economic recovery in 2020 Q3 and Q4. The contribution of the change in inventories was strongly positive in 2021 as a whole.

For 2022 Q1, domestic GDP is expected to post a moderate quarterly increase. In January and February, economic activity benefited from the rebound in domestic industrial output, especially manufacturing, and the upturn in the external one, amid the temporary improvement in the functioning of global production chains. To these added the positive developments in the construction sector, visible both in the speed-up in construction works and in building permits issued. In March 2022, following Russia's invasion of Ukraine, a significant worsening occurred in the economic environment and, hence, outlook (as suggested by a series of

Chart 4.7. Economic sentiment indicator* and economic growth



*) seasonally adjusted data
Source: NIS, EC-DG ECFIN

85 Unless otherwise indicated, quarterly percentage changes are calculated based on seasonally adjusted data series. Source: NBR, MF, NIS, Eurostat, EC-DG ECFIN and Reuters.

86 NIS Press Release No. 85 of 8 April 2022.

87 Residual terms which are difficult to be assigned an explicit economic substance based on historical developments. Their high magnitude points to possible future revisions of the historical data series on GDP and its components.

high-frequency indicators on domestic and external economic activity[88]). In 2022 Q1 as a whole, the favourable path of demand, further burdened by the deterioration of purchasing power, was supported by the easing and later on the lifting of social distancing restrictions, but also by the influx of Ukrainian refugees (with a positive impact on purchases of staple products). The economic agents' relatively high confidence (Chart 4.7), mainly in the services segment, is also deemed to have made a positive contribution to economic growth.

In 2022 Q2, a near-stagnation of GDP is expected amid the persistence of less favourable developments induced by further hikes in prices and the step-up in uncertainty, both of which have a deterrent effect on aggregate demand in the economy. In this context, economic activity could be affected by the postponement of investment and consumption decisions. At the same time, trade flows are expected to contract, as the economies of Romania's trading partners are also affected by elevated uncertainty[89].

The baseline scenario of the projection assumes that the war in Ukraine will have the greatest economic impact this year, which will gradually abate in the years ahead. Thus, after the notable advance recorded in 2021 as a whole, for 2022 economic growth is projected to slow down considerably. Its trajectory is then seen nearing potential growth rate, a relative recovery of the economy's dynamics being forecasted for 2023. The breakdown shows that the average annual growth rate of GDP is expected to be further driven by that of household consumption to which adds, starting with next year, the contribution from gross fixed capital formation. The contribution of net exports in real terms is projected to be, in absolute terms, significantly lower than in previous years, amid an expected contraction of international trade.

Sizeable unfavourable influences, with an impact on all aggregate demand components, are generated by the hikes in commodity and energy costs, amplified by the warfare in Ukraine. A favourable influence is expected, for the forecast interval overall, from factors such as: the upturn in trading partners' economies (in the assumption of a relatively rapid de-escalation of the military conflict) or the absorption of EU funds from multiple sources[90] (*inter alia* under the Next Generation EU programme, which is conditional on fulfilling strict milestones and targets).

Compared to the projection in the February 2022 *Inflation Report*, the economic growth rates for both 2022 and 2023 have been revised downwards. The changes, of which that for the current year is more significant, reflect flagging demand from trading partners, mounting uncertainty and its impact on economic agents' consumption and investment decisions, as well as the broad-based tightening of financing conditions. Against this background, both the potential GDP dynamics and the output gap profile have been revised downwards compared to the previous *Report*.

88 Following the onset of Russia's invasion of Ukraine, there has been a worsening in risk perception indicators (the option adjusted spread or Google searches for the keyword "crisis") or investor confidence indicators for the euro area economy (Sentix index).

89 Higher uncertainty was seen especially in manufacturing, the deterioration being comparable to that at the time of the pandemic outbreak. For details see Uncertainty Indicators, on the European Commission's website.

90 The Multiannual Financial Framework 2021-2027, the Next Generation EU programme (2021-2026), the extension, by way of derogation, of the allocation of funds under the Multiannual Financial Framework 2014-2020.

In the context of the military conflict, which is also seen to have economic effects, including in the medium and long run (through the implications arising from the risk of a possibly lasting fragmentation of global economy that could affect investment flows to emerging economies), the projected annual growth rates of potential GDP were reassessed downwards compared to the previous *Report*. The reconfiguration occurs amid the adverse impact on the stock of capital and the total factor productivity (in the latter case, the impact is especially expected over the short term), while the revision of the labour contribution is marginal.

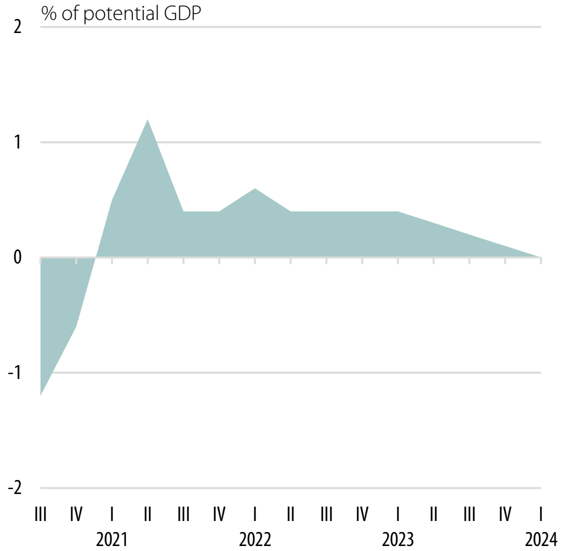
The confidence of economic agents regarding the evolution of the investment environment is jeopardised by the mounting uncertainty about the duration and consequences of the war, as well as the problems related to energy security of countries with a high dependence on oil and natural gas supplies from Russia. An additional reason for concern refers to the persistence of bottlenecks in global production and supply chains. Thus, at least in the short run, the progress in the ongoing projects and the engagement in new ones will be conditional on the volume of EU funds attracted from multiple sources. In addition, the capital stock accumulation is assessed to reflect in 2022 the downward revision of the dynamics of investment flows. Turning to labour, the forecast of a relatively stable contribution of labour force shows the favourable trend in the activity rate and number of worked hours per employed person, mitigated by a deterioration in the unemployment rate this year, in parallel with a slowdown in the economy. In the longer run, demographic developments in Romania are expected to have an unfavourable impact, especially the anticipation of a fast-paced decline in the working-age population. The contribution made by the total factor productivity (TFP) trend reflects the efforts to adapt productive capacity and to continue digitalisation[91], possibly spurred by the cyber component of this war. The economic context calls for a more efficient use of resources and a faster transition to a green economy, a process especially favoured by the absorption of European funds under the Next Generation EU programme. In the medium and long run, under the current assumption of a relatively rapid de-escalation of the military conflict, the potential GDP trajectory is projected to post further robust dynamics. However, an accurate quantification of the economic impact becomes difficult given that the direct and indirect effects of the sanctions imposed on Russia, as well as the entire set of sanctions designed to weaken Russia's ability to continue and expand the conflict, cannot be fully anticipated.

Compared to the previous *Report*, the output gap pattern (Chart 4.8) has been revised downwards for the entire forecast interval. In the context of multiple adverse shocks impacting aggregate demand, excess demand is already low in the first part of this year. Subsequently, amid monetary policy normalisation and fiscal consolidation, in the medium run, the output gap is seen closing until the projection horizon[92], i.e. 2024 Q1, when it is projected to become quasi-neutral (0.1 percent). Starting

91 Based on the paper entitled *Digitalization in Romanian companies* (October 2021), MKOR Consulting. However, the Digital Economy and Society Index (DESI) 2021 report still ranks Romania last among EU countries, and above average only in the Connectivity sector.

92 From the perspective of aggregate demand components, the output gap path is shaped by the developments in final consumption, alongside the GFCF path during the coming year. The gaps of exports and imports make a negative net contribution, which is seen on the wane.

Chart 4.8. Output gap



Source: NBR assessments based on data provided by the NIS

with 2022 Q2, the differences versus the previous *Report* become significant, reflecting the revised short-term outlook for the economy, anticipated to undergo a marked slowdown this year. In view of the extremely unfavourable external developments, the contribution from trading partners' demand has also been re-assessed downwards during the current year, thus leading to the adjustment of domestic output gap.

Aggregate demand components

In 2022, the average annual growth rate of final consumption is expected to decelerate against 2021, with the developments in this component being triggered by the contribution of households' individual consumption. The slowdown is seen to take place amid the mounting uncertainty in the economy and the further erosion of households' purchasing power. The deterioration of households' disposable income is mitigated by the extension during 1 April 2022 – 31 March 2023 of the measures to cap electricity and natural gas prices. The social measures adopted in 2022 Q1, targeting categories of households with a stronger propensity for consumption, act in the same direction[93]. However, household consumption, which is expected to post a slightly faster growth rate over the following year, remains burdened by the uncertain prospects both domestically and externally regarding the persistence of the energy crisis as well as of knock-on price increases throughout the production chain.

During the current year, gross fixed capital formation is projected to remain at an overall level close to that in the previous year, its trajectory[94] being affected by the impact of the uncertainty bout induced by the military conflict on the Romanian border. Moreover, the persistence of disruptions in global value chains generated, via the hikes in commodity prices and supply-related issues, certain bottlenecks, including in the construction sector. At the same time, adverse effects potentially leading to the future erosion of the investment trajectory may stem from a possible slowdown in industry activity, especially amid the persistence of elevated energy price growth rates, likely to worsen in the event of economic sanctions being also extended to energy imports from Russia. In the medium term, gross fixed capital formation may very well be further spurred by Romania starting to absorb funds, as early as this year, under the Next Generation EU programme, which comes with extremely generous allocations, for implementing structural reforms as well.

93 January 2022 saw: (i) the raise in the pension point by 10 percent; (ii) the hike in the minimum pension by 25 percent; (iii) the increase in the economy-wide gross minimum wage by 10.9 percent, from lei 2,300 to lei 2,550; (iv) the granting of a one-off allowance to persons with a pension lower than or equal to lei 1,600.

94 In 2022, the forecast for the average annual GFCF growth rate also incorporates a carry-over effect assessed at -4.7 percentage points amid the significant contractions in the second half of 2021.

On the external front, after the swift advance in 2021 (which also reflected significant base effects, as well as rising demand for goods), the real dynamics of exports and imports are projected to decelerate in 2022-2023, leading to a much lower contribution of net exports to GDP growth in absolute terms compared to previous years. Against the backdrop of heightened uncertainty surrounding Russia's invasion of Ukraine, considerable indirect adverse effects may emerge via the trade channel, given the role played by these two countries in the global production of some metals and sub-components, despite the relatively small shares of direct imports/exports from/to the two states[95]. In addition, persistent effects[96] on trade flows further stem from the impaired functioning of global value chains[97], which has already caused large disruptions in international trade. Furthermore, the stocks of intermediate goods that are heavily used in industries such as car manufacturing or electrical equipment are expected to be low as well, due also to the extremely strict lockdown measures implemented in China.

Specifically, exports of goods and services are assessed to be affected, especially during the current year, by the impact of a broad-based increase in the prices of a wide range of commodities and by a slowdown in demand from external trading partners. Nevertheless, in the medium run, this component benefits from the prospects on an upturn of effective external demand (conditional, however, on the gradual dissipation of bottlenecks generated by the Ukraine conflict across global value chains), whereas the real effective exchange rate is foreseen to strengthen its restrictive effect on the price competitiveness of Romanian products. At this horizon, a positive contribution to raising productivity and hence competitiveness could come from the absorption of EU funds (under the Next Generation EU programme in particular). Real imports of goods and services are also forecasted to post high annual growth rates (albeit lower than in 2021), reflecting developments in aggregate demand components and exports, via the stimulative effect.

In 2021, the current account deficit as a share of GDP deteriorated to 7 percent (from 5 percent in 2020). For 2022, the baseline scenario of the projection foresees that the 2021 level will be marginally exceeded. Behind these developments stood mainly the balance on trade in goods, whose value is expected to be adversely influenced by prices of imported goods, amid stronger disruptions in global value chains. Conversely, potentially favourable effects are associated with goods for which Romania has maintained its net exporter position (e.g., grains, a commodity that has seen its production and distribution severely affected by the war in Ukraine). Over the medium term, the external imbalance is envisaged to further post values above

95 In 2021, direct fuel imports from Russia accounted for about 2.4 percent of Romania's overall imports (i.e. including also the remaining categories of goods). This value is indicative of the direct exposure to this country, as reflected in official statistics, but without capturing potential global distribution chains involving international trade with Russia. A series of significant adverse effects could affect local companies that hold large shares of their business sectors and have Russian shareholders.

96 It is difficult to anticipate the moment when the disruptions in global production and distribution chains will ease more significantly, following which the trade balance components that have traditionally reported surpluses in relation to external trading partners would be likely to witness a rebound. For instance, the ECB's most recent macroeconomic projections for the euro area (March 2022) foresee only a gradual dissipation of supply bottlenecks as of 2022 H2, one quarter later than anticipated in the previous forecast (published in December 2021).

97 Estimated to be affected also by the rise in maritime transport costs compared to the pre-pandemic period, despite the relative slowdown in their dynamics in the first part of 2022.

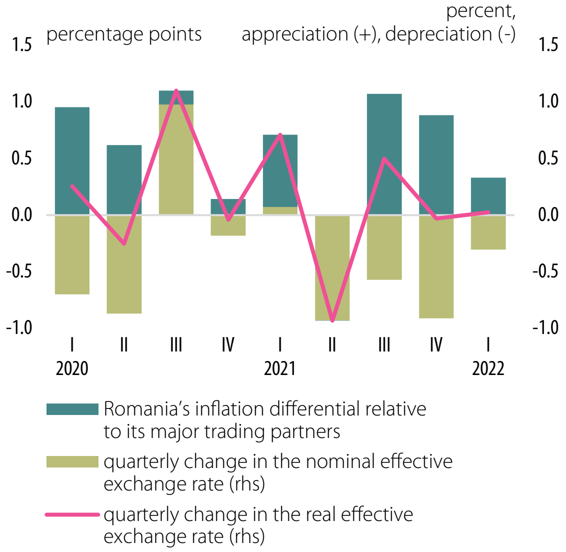
6 percent of GDP, a gradual improvement being expected, underpinned *inter alia* by the advance in fiscal consolidation, as well as by the assumed easing of disruptions in global production and distribution chains.

The current account deficit is anticipated to be only partly financed by stable, non-debt-creating capital flows over the entire projection interval. The volume of foreign direct investment inflows as a share of GDP will most likely be affected by the tensions stemming from the ongoing military conflict on Romania's border, eroding investor confidence to a certain extent, which is, in fact, a typical phenomenon during episodes of economic and geopolitical turmoil. However, over the medium term, direct investment is forecasted to recover, amid an improved investment climate, along with the advance in the implementation of various EU programmes (especially those committed to by the authorities under the National Recovery and Resilience Plan – NRRP). At the same time, favourable prospects are associated with capital transfers, amid the overlapping of EU funds disbursements from multiple sources: the multiannual financial frameworks (2014-2020 and 2021-2027) and the Next Generation EU programme.

Broad monetary conditions

Broad monetary conditions capture the cumulated impact exerted on future developments in aggregate demand by the real interest rates applied by credit institutions on leu- and foreign currency-denominated loans and deposits of non-bank clients and by the real effective exchange rate of the leu[98]. The exchange rate exerts its influence via the net export channel, as well as via the effects on wealth and balance sheets of economic agents[99].

Chart 4.9. Quarterly change in the effective exchange rate



Source: Eurostat, U.S. Bureau of Labor Statistics, NBR, NBR calculations

Reflecting the process of gradual normalisation of the monetary policy conduct, the baseline scenario of the projection foresees a gradual reduction in the stimulative nature of real broad monetary conditions in 2022 and in early 2023, followed by restrictive values until the forecast horizon.

The breakdown shows that real interest rates on both new loans and new time deposits in lei are anticipated to exert cumulated stimulative effects, mainly as a result of higher inflation expectations. However, over the forecast interval, the stimulative influence of real interest rates will gradually fade out to neutral values at the projection horizon, due to incorporating the effect of previous monetary

[98] The relevant exchange rate for the NBR's macroeconomic model for analysis and medium-term forecasting relies on the EUR/RON and USD/RON exchange rates, with the weighting system mirroring the weights of the two currencies in Romania's foreign trade.

[99] The relevance of this channel has declined gradually in recent periods, given the lower share of foreign currency-denominated loans in total credit to the private sector.

policy decisions and to lowering inflation expectations. The real effective exchange rate component (Chart 4.9) is envisaged to make an increasing restrictive contribution via the net export channel until 2023 Q2, before decreasing thereafter. The further restrictive nature of the real effective exchange rate gap owes to the appreciation in real terms of the domestic currency, associated with the prevailing effect of the higher domestic inflation rate compared to those of Romania's trading partners.

The wealth and balance sheet effect is assessed to make a gradually fading stimulative contribution over the next quarters, turning neutral since mid-2023. The breakdown shows that its dynamics will be attributable to the increase in the real foreign interest rate (3M EURIBOR), given the gradual decline of inflation expectations in the euro area, as well as the normalisation of the ECB's monetary policy stance. The sovereign risk premium has a restrictive impact, the values of this indicator reflecting the concerns over Romania's geographical proximity to the war zone. At the same time, vulnerabilities associated with the budget and current account deficits remain elevated. The dynamics of the leu's real effective exchange rate gap are assessed to have a quasi-neutral effect.

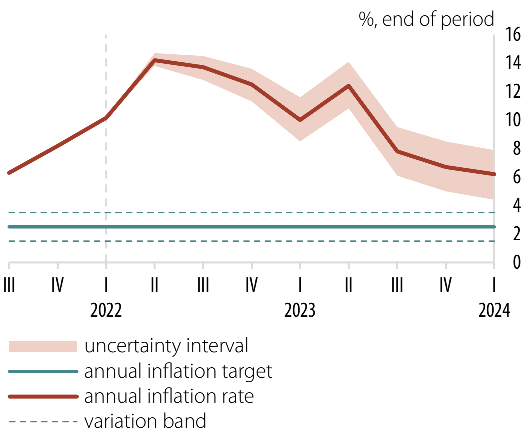
The NBR's monetary policy stance aims to anchor inflation expectations over the medium term, as well as to foster saving through higher bank rates, so as to bring back the annual inflation rate in line with the 2.5 percent ±1 percentage point flat target on a lasting basis, in a manner conducive to achieving sustainable economic growth in the context of the fiscal consolidation process.

4.4. Risks associated with the projection

Once with Russia's invasion of Ukraine, the risks and, especially, the uncertainties surrounding the macroeconomic projection have become unusually pronounced, amid the largest military conflict in Europe since World War II. Against this background, a multitude of shocks are expected, entailing divergent effects on the annual inflation rate and economic activity, but the numerous unknowns concerning the future evolution of the conflict make it difficult at this moment to provide a rigorous quantitative assessment.

At the current juncture, marked by the materialisation of some risk factors mentioned in the previous *Report* as well as by the emergence of new significant sources of uncertainty stemming from the military conflict in Ukraine, the balance of risks to the annual CPI inflation rate continues to be tilted to the upside compared to its path in the baseline scenario (Chart 4.10). However, over a longer time horizon, although new inflationary bouts may arise, for instance from sanctions on Russia being extended, a certain easing of pressures on the annual inflation rate could reflect, on the one

Chart 4.10. Uncertainty interval associated with inflation projection in the baseline scenario



Note: The uncertainty interval was calculated based on the annual CPI inflation forecast errors in the NBR projections during 2005-2021. The magnitude of forecast errors is positively correlated with the time horizon they refer to.

Source: NIS, NBR calculations and projections hand, a possibly more significant deceleration in aggregate demand and, on the other hand, a larger supply of certain categories of currently scarce products as a result of their high prices.

The highly inflationary environment puts cost-push pressures on companies (energy, other food and non-food commodities, transport). These are expected to continue to pass through to final prices as well. Where, as indicated by the previous price-setting behaviour in the domestic economy, the pass-through takes place over several months, the impact on inflation is likely to be somewhat more persistent.

Energy price increases are an important pass-through channel, given that Russia accounts for a significant share of the global production of these goods (particularly of natural gas)[100]. At this time, it is difficult to predict to what extent the set of sanctions imposed by the international community would leave room for significantly replacing the Russian gas and oil, considering that the higher the importers' energy dependence, the more difficult the substitution. In the case of Romania, which counts among the European economies with the lowest energy import dependency, further extensions of economic support schemes beyond March 2023 should not be ruled out until the domestic production of natural gas is increased. In such an event, the medium-term trajectory of the annual CPI inflation rate could be adjusted to significantly lower values than projected in the baseline scenario, probably inside the variation band of the target.

High uncertainties are also associated with the embargo by European countries on Russian oil imports and its implementation stages, which could result in further escalation of the international crude oil price. However, the oil market is not threatened by price spike risks only. For example, a faster-than-expected slowdown in China's economy, through its effect on global demand for oil, could mitigate even to a great extent the risks of market escalation.

At the same time, non-energy commodity prices are another important channel for spreading adverse shocks. Bottlenecks in global production and supply chains could persist for a longer period of time and even amplify in the context of international sanctions on trade with Russia, the retaliatory action by the Russian authorities, as well as of the deterioration of the health situation in China. This could lead to a decline in the supply of various finished and semi-finished products and delays in deliveries, similar to or even more pronounced than those seen during the pandemic.

Specifically, agri-food prices could be influenced by both severe supply-side shocks and a possible worsening in the fertiliser crisis, *inter alia* as a result of higher energy prices. In addition, amid uncertainties about the timely sowing of agricultural land

[100] At European level, the European Commission has proposed the REPowerEU plan designed to ensure Europe's independence from Russia's fossil fuels before 2030, starting with natural gas. Shortly after communicating the REPowerEU plan, the Commission tabled a legislative proposal introducing a minimum 80 percent gas storage level obligation for EU Member States for next winter, rising to 90 percent for the following years. For details, see: https://ec.europa.eu/commission/presscorner/detail/en/IP_22_1936.

in Ukraine, the weather conditions, as well as the future smoothness of traditional road transport, the agricultural supply could see a drop in the coming season, with persistent effects on prices.

Such broad-based inflationary pressures could call for the adoption of new support measures or, where appropriate, for the extension (in the case of energy) of the schemes in place. The additional stimulus packages, where they are financed from domestic sources, would be at odds with the need to continue the sustained correction of the government deficit due for completion in 2024. In the context of the war in Ukraine and considering the difficulty to anticipate its duration and consequences, including also the total budgetary effort, fiscal rules across Europe might be again rendered more flexible; in Romania's case, this would imply maintaining budget deficits at high levels for a longer period of time, which would lead to an increase in macroeconomic vulnerabilities.

Nevertheless, pressures on the budget could be partially relieved by an improved absorption of European funds. The recently more flexible rules applicable to the cohesion policy under the 2014-2020 Multiannual Financial Framework may bring about favourable developments. However, further relevant are the uncertainties about the performance of the National Recovery and Resilience Plan, conditional on fulfilling strict milestones and targets, as well as on the optimal allocation of expenses over time, given their predominantly investment nature, alongside the need to finalise the projects financed by 2026.

The war in Ukraine has an adverse impact on labour market too. Especially in the near run, its future developments are marked by the direct and indirect effects of the war. The erosion of the purchasing power by broad-based price increases could put upward pressures on wages (albeit of various magnitude by business sector). In the medium term, the shortage of skilled labour may soar in certain sectors.

Similarly to the domestic environment, developments in foreign economies are also affected by the adverse implications associated with the Russian military conflict in Ukraine. In the event of the war taking longer than expected and geopolitical tensions mounting further, external demand could see an even steeper downward reconfiguration. In the medium and long term, there is also a risk of fragmentation of the global economy. However, favourable influences are associated with the implementation of economic stimulus packages at European level and in the US economy. Uncertainties are also associated with the pace of the monetary policy normalisation process carried out by major central banks and banks in emerging economies in the context of broad-based inflationary pressures.

A risk that has become less relevant lately refers to developments in the health sector. The de-escalation of the public health crisis was followed shortly by the end of the state of alert domestically, accompanied by the lifting of all social distancing restrictions. Nevertheless, uncertainties remain about a possible resurgence of the pandemic.

Abbreviations

CPI	consumer price index
DG ECFIN	Directorate General for Economic and Financial Affairs
EC	European Commission
ECB	European Central Bank
EU	European Union
Eurostat	Statistical Office of the European Union
FAO	Food and Agricultural Organization of the United Nations
GDP	gross domestic product
HICP	Harmonised Index of Consumer Prices
ILO	International Labour Office
IRCC	benchmark index for loans to consumers
MF	Ministry of Finance
NBR	National Bank of Romania
NIS	National Institute of Statistics
OPCOM	Romanian Electricity and Gas Market Operator
OPEC	Organisation of the Petroleum Exporting Countries
ROBOR	Romanian Interbank Offer Rate
TFP	total factor productivity
VAT	value added tax
VFE	vegetables, fruit, eggs
WB	World Bank
3M	3 months
12M	12 months
3Y	3 years
5Y	5 years
10Y	10 years

Tables

Charts