NATIONAL BANK OF ROMANIA

Inflation Report

May 2021

Year XVII, No. 64

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NOTES

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.

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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 12 May 2021 and the cut-off date for the data underlying the macroeconomic projection was 7 May 2021.

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

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Summary

Developments in inflation and its determinants

The annual CPI inflation rate increased considerably in 2021 Q1, i.e. up 0.99 percentage points to 3.05 percent, nearing the upper bound of the variation band of the target. The hike was ascribed to the energy component of the consumer basket, amid the liberalisation of the electricity market for households as of 1 January 2021 and the steeper upward path of crude oil prices. Conversely, the annual adjusted CORE2 inflation rate declined further in 2021 Q1, down 0.4 percentage points to 2.8 percent from December 2020 to March 2021. Compared to the previous *Inflation Report*, the annual CPI inflation rate in March stood 0.11 percentage points above the projected level, whereas the adjusted CORE2 inflation rate confirmed the forecast. The average annual CPI inflation rate stabilised at around 2.6 percent during Q1, whereas the average annual inflation rate calculated based on the Harmonised Index of Consumer Prices (HICP) dropped 0.2 percentage points versus December 2020 to 2.1 percent in March. Nevertheless, Romania further ranks among the EU Member States with the highest average HICP inflation rate.

The annual adjusted CORE2 inflation rate continued to decrease at a relatively swift pace in the first three months of 2021, more than half of this decline being attributed to a statistical effect on the food component. Looking at the fundamentals, the aggregate demand deficit in the economy and the more moderate annual pace of depreciation of the domestic currency against the euro further exerted disinflationary influences, while the build-up of cost pressures persisted. A look at the breakdown shows that the components of the adjusted CORE2 index recorded mixed developments. Specifically, market services, which involve longer physical interaction, have remained the most affected by mobility restrictions, seeing stronger decelerations in 2021 Q1. As for the food component, the unfavourable evolution of demand from the hospitality industry and, to a smaller extent, from the retail segment also fuelled a disinflationary trend, albeit more moderate, across this group. The redistribution of a part of household income (that could not be spent for services) to the acquisition of durables and semi-durables contributed to the robust dynamics of sales, which resulted in slightly stronger inflationary pressures on the non-food segment.

In the latter half of 2020, the annual growth rate of unit labour costs slowed down, remaining however robust (approximately 10 percent in 2020 H2 from roughly 12 percent in Q2), with values above the economy-wide average in the business sectors that require human interaction. The indicator adjusted for the impact of firms' recourse to government support measures recorded lower dynamics (of about 8 percent). Looking at the industrial sector, the annual growth rate of unit wage costs neared 3 percent in the period from August 2020 to February 2021, but the analysis by sub-sector shows further mixed developments. Some areas (metallurgy, fabricated metal products) continued to record productivity gains, while the

automotive industry and the related sub-sectors reported worsening dynamics of unit wage costs in the first months of 2021. As for the sub-sectors with relevant shares in the CPI basket, the annual growth rates of ULC remained high at the beginning of 2021, going above 15 percent in the light industry and the pharmaceutical sub-sector and posting somewhat more moderate values (about 6 percent) in the food and furniture industries.

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

In the recent period, the monetary policy stance was calibrated with a view to preserving price stability over the medium term in line with the 2.5 percent ±1 percentage point flat inflation target, in a manner supportive of the recovery of economic activity in the context of fiscal consolidation, while safeguarding financial stability.

In its meeting of 15 March 2021, the NBR Board decided to keep unchanged the monetary policy rate at 1.25 percent per annum, the deposit facility rate at 0.75 percent per annum and the lending (Lombard) facility rate at 1.75 percent per annum. Moreover, the minimum reserve requirement ratios on both leu- and foreign currency-denominated liabilities of credit institutions were maintained at 8 percent and 5 percent respectively.

The decisions were taken in an environment in which the annual inflation rate had risen to 2.99 percent in January 2021, from 2.06 percent in December 2020, and to 3.16 percent in February, well above the previously-expected level, under the transitory impact of the liberalisation of the electricity market for household consumers and following the rise in fuel prices driven by higher oil prices. Conversely, the annual adjusted CORE2 inflation rate continued to decrease slowly over this period, falling to 3.1 percent in January and staying at this level in February, from 3.3 percent in December 2020. Behind this stood mainly the disinflationary base effects associated with the developments in some processed food prices, to which added the modest influences of the aggregate demand deficit. Moreover, the annual adjusted CORE2 inflation rate in February confirmed the level in the previous projection.

The new medium-term forecast pointed to a change in the pattern of future inflation, as its updated path was revised significantly upwards in the short run and to a smaller extent over the medium term. Specifically, the annual CPI inflation rate was expected to pick up gradually during 2021, until nearing the upper bound of the variation band of the target, under the impact of supply-side shocks. Further on, after a sizeable downward correction at the beginning of next year, it was anticipated to climb again and remain slightly above the mid-point of the target, amid the earlier reopening of the positive output gap and its subsequent slow widening.

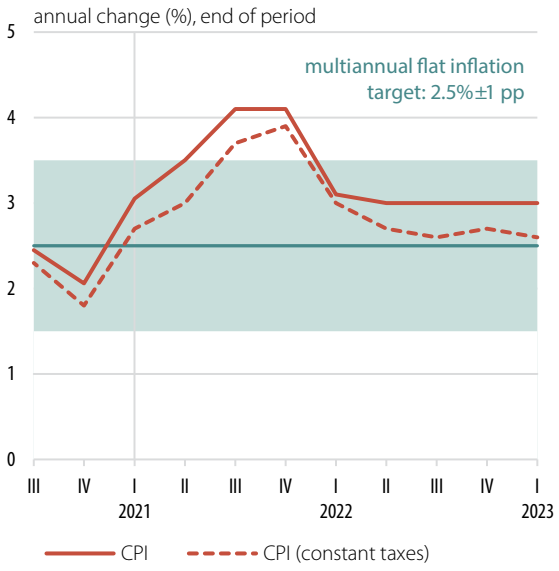
High uncertainties and risks to the new outlook stemmed, however, from the evolution of the pandemic and of the associated restrictive measures – amid the spread of the third pandemic wave. Other major sources of uncertainties and risks referred to the fiscal policy stance, in the context of the budget consolidation presumed to be carried out gradually over the medium term, to the synchronised

uptrends in many commodity prices, as well as to the recent heightening of international financial market volatility, accompanied by a broad-based increase in government bond yields.

Inflation outlook

The current baseline scenario is further fraught with multiple interlinked sources of risks and especially of uncertainty, stemming primarily from public health developments. The COVID-19 pandemic produced the strongest effects during 2020 Q2. Following the gradual normalisation of economic activity in 2020 Q3, the medical situation worsened again last autumn and winter, which called for the reintroduction of some more targeted mobility restrictions. Meanwhile, international financial market volatility subsided, along with local and global production and distribution chains resuming operation under almost normal conditions. In this context, economic activity in both Romania and several other European countries proved to be more resilient than expected in 2020 Q4, in spite of further visible differences in the economic performance across sectors. This episode confirmed the presence of non-linearities in the relationship between the stringency of mobility restrictions and the dynamics of economic activity, accounted for by a more careful tailoring of social distancing measures by the authorities and an increasingly efficient adaptation of economic agents to the epidemiologic context. Against this backdrop, the granular data on the economic parameters in 2021 Q1 seem to indicate a further robust domestic economy, the start of the third pandemic wave notwithstanding. The particular features of the medical situation, namely the emergence of new viral mutations, on the one hand, and the progress in the vaccination campaign, on the other, make it difficult to foresee how persistent social distancing restrictions will be over time. For this reason, the downside risks to the economic activity prospects in the baseline scenario are expected to prevail further, especially in the short run, until the medical situation returns to normality.

Inflation forecast



Source: NIS, NBR projection

According to the baseline scenario, the public health crisis is envisaged to start loosening its grip in 2021 Q2 and fade away at a faster pace during Q3, with a significant contribution anticipated to come from reaching a critical vaccination threshold at national level during this summer. Against this background, in 2021 Q1, GDP is foreseen to remain close to the (high) level recorded at end-2020. The economic growth rate is expected to gain moderate momentum in Q2 and see an acceleration no sooner than the second part of the year (Q3 and Q4). In 2021, the annual GDP growth rate is forecasted at a significant positive level, with the previous year's carry-over effects acting as a notable stimulus. Favourable influences are also linked to the likely transition to a normal year in terms of weather conditions, as well as

to the incorporation, for the first time, into the baseline scenario of an assumption of committing EU funds under the Next Generation EU programme. The premises underlying the incorporation of this assumption and the expected favourable impact refer, on the one hand, to the sizeable volume of funds allocated to Romania (of which grants under the Recovery and Resilience Mechanism in amount of 6.4 percent of 2019 GDP, cumulated 2021 through 2026) and, on the other, to the European Commission's firm intention to start allocating this year a pre-financing of up to 13 percent of the total volume of the available funds.

The third pandemic wave, as well as the rollout of the vaccination campaign over several quarters caused households to show additional caution in their consumption behaviour in early 2021. At the same time, the still high uncertainty about the length and a possible future resurgence of the medical crisis carries also the potential to hamper a faster increase in private investment. This could be, however, offset by the set of government programmes aimed to smooth access to corporate financing, the announcement of a significant volume of public investment expenditure, as well as by the expected initiative to commit EU funds under the Next Generation EU programme. These are seen as additional sources or, as the case may be, funds which would replace the investment expenditure already planned by the authorities. Under the circumstances, investment is further likely to stay on the favourable path (observed ever since the previous year) in the medium term, which would also implicitly translate into a significant contribution of gross fixed capital formation to the recovery of the economy's growth potential.

After having resumed at a fast pace the recovery of losses induced by the first pandemic wave, Romania's exports are expected to have recorded a deceleration at the onset of this year, in light of developments in external demand. In turn, imports of goods and services are seen to post a slower growth rate, in conjunction with the developments in domestic demand components and the slight loss of momentum of exports. Under the circumstances, the current account deficit in 2021 could remain close to the 2020 level; although its evolution is going to benefit from the start of the fiscal correction ahead, the foreign partners' economic recovery pace remains of the essence.

Similarly to the assessment included in the previous *Inflation Report*, GDP could possibly return to the level seen in 2019 Q4 already in the course of 2021. In addition, a good absorption of EU funds allocated through both the Next Generation EU programme and the new 2021-2027 Multiannual Financial Framework is likely to make a notable contribution to the recovery of the Romanian economy, which could thus well converge, by the end of the NGEU budgeting period (2026), towards a GDP level similar to that expected to prevail at this horizon in the projections completed prior to the pandemic outbreak. The cyclical component of economic activity saw a notable correction of its negative value ever since the second part of the previous year, with a shift to neutral and, subsequently, positive values being expected to occur in the second part of 2021. However, the anticipated investment momentum, through its significant contribution to potential GDP dynamics, is expected to contain, over the coming years, the speed of output gap widening, in spite of a further fast-paced economic recovery. Together, these assumptions seem to indicate a slight acceleration,

in the medium run, of the Romanian economy's real convergence, while keeping under control consumer price dynamics.

Since the release of the *Inflation Report* in March 2021, some significant inflationary pressures have materialised, induced mostly by components of the consumer basket, the prices of which are beyond the scope of monetary policy, especially fuel prices, but also the other items of the energy price component, i.e. electricity and natural gas prices. Conversely, the annual adjusted CORE2 inflation rate has seen relatively minor revisions, being forecasted to reach 2.8 percent in December 2021 and 3 percent in December 2022. Thus, the annual CPI inflation rate is expected to enter a steep upward path during the coming months and reach 4.1 percent in December. The mainly temporary nature of the shocks anticipated for this year will then imply some favourable base effects, with the annual CPI inflation rate projected to go down to 3 percent at end-2022. Moreover, the correction from slightly above 4 percent in 2021 to levels comfortably staying in the variation band of the target, i.e. close to 3 percent, is expected to take place as soon as 2022 Q1. Compared to the March 2021 *Inflation Report*, the revisions of the annual CPI inflation rate are significant for end-2021, i.e. +0.7 percentage points, amounting to 0.2 percentage points for December 2022 (mainly owing to a higher contribution from the adjusted CORE2 index).

In the particular context of the health crisis persisting, the monetary policy stance of the NBR has been tailored to preserve price stability over the medium term in line with the 2.5 percent ±1 percentage point flat target, in a manner supportive of the recovery of economic activity in the context of fiscal consolidation, while safeguarding financial stability.

After the release of the previous *Report*, the third pandemic wave intensified. Under the circumstances, it became obvious that up to date, in Europe, the epidemic spread has outpaced vaccination campaigns. However, the authorities' commitment to step up the vaccination process, the prospects of implementing comprehensive programmes to support the European economies, further extremely stimulative fiscal and monetary policy stances on the continent, as well as the spillover effects from the large fiscal stimulus implemented by the US Administration pave the way for a faster economic recovery in the EU in the second half of 2021, which may be reflected in strong dynamics of external prices. At the same time, the brighter outlook for an economic upturn has also caused international commodity prices to pick up in tandem, which may additionally drive inflation up, yet with a still uncertain magnitude over the short and especially medium term. For this reason, in the current round, the sources of risk from the domestic and external environment continue to be substantial; based on the presently available information, the balance of risks to the annual inflation rate projection is assessed to be on the upside as against the values forecasted in the baseline scenario, especially in the short run.

On the domestic front, one of the relevant risks refers to the future evolution of some energy prices. Thus, the recent developments in international crude oil prices have passed through, as usual, into higher import prices of natural gas on the domestic market. This trend could become more pronounced because of the

declining gas reserves, given that a number of European countries faced extremely low temperatures last winter. These pressures could translate into higher natural gas prices on the domestic market as, in mid-2021, the contracts between natural gas suppliers and end-users are expected to be renewed. Under the circumstances, inflationary pressures of a higher magnitude than those in the baseline scenario are not ruled out for the second part of the current year.

Looking ahead, the recovery of EU economies could significantly benefit from the funds allocated through the Next Generation EU programme, thanks to the unprecedented joint effort by EU economies. In the case of Romania, the fruition of this programme is all the more relevant, as, on the fiscal front, the coming years are seen to be marked by the budget consolidation effort, and implicitly by a lower contribution from this macroeconomic policy mix component to giving a boost to the economy. On the other hand, the absorption of the largest possible amount of mutual funds under such programmes could give the necessary impetus to a rapid recovery of domestic economic activity. Given that the National Recovery and Resilience Plan for Romania is to be officially submitted for analysis to the European Commission by the end of May 2021, the current baseline scenario was built based on the conservative assumption of a moderate fund absorption when measured against the allocations benefiting Romania. From this perspective, the risks induced by this factor to the macroeconomic coordinates, especially in the longer run, seem to be rather favourable. Such an outlook is, however, strictly conditional on the authorities' selection of an investment project portfolio meeting the formal requirements of pan-European authorities: on the one hand, it should be based on the vulnerabilities specific to the Romanian economy, identified in the context of the specific country recommendations of the European Commission, and, on the other hand, it should ensure an optimal dosage between investment projects and structural reforms. Subsequently, also of the essence will be the capacity to ensure an early implementation of these projects likely to create horizontal and vertical economic synergies and thus enable the completion of these investment projects until the horizon of the Next Generation EU programme, more exactly 2026.

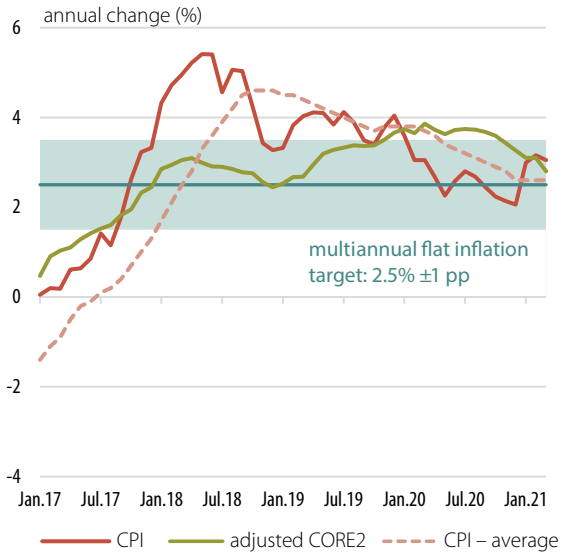
Monetary policy decision

Given the characteristics of the new inflation outlook, as well as the related uncertainty and risks, stemming from the coronavirus pandemic, the fiscal policy stance and EU funds absorption, but also from labour market conditions and the uptrend in commodity prices, the NBR Board decided in its meeting on 12 May 2021 to keep the monetary policy rate at 1.25 percent. Moreover, it decided to leave unchanged the deposit facility rate at 0.75 percent and the lending (Lombard) facility rate at 1.75 percent. Furthermore, the NBR Board decided to maintain 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 increased considerably in 2021 Q1 (+0.99 percentage points to 3.05 percent), nearing the upper bound of the variation band of the target. The hike was ascribed to the energy component of the consumer basket, amid the liberalisation of the electricity market for household consumers as of 1 January 2021 and the steeper upward path in crude oil prices. Looking at the fundamentals, the aggregate demand deficit in the economy and the slower pace of depreciation of the domestic currency against the euro have continued to exert disinflationary pressures, while cost pressures have been building up. Strongly influenced by the base effects on the food segment, adjusted CORE2 inflation declined further in 2021 Q1 (down 0.4 percentage points to 2.8 percent in March), (Chart 1.1).

Chart 1.1. Inflation developments

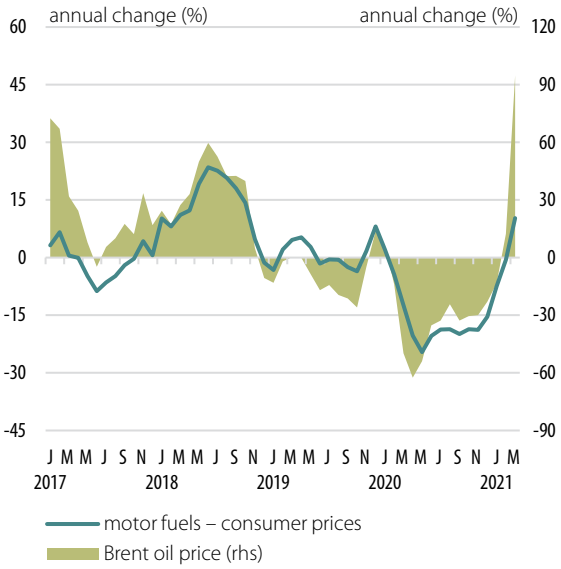


Source: NIS, NBR

Energy prices[1] shaped the inflationary path in the first three months of the year, contributing to the increase in the annual CPI inflation rate by approximately 2 percentage points. The Brent oil price followed a strong upward trend ever since the beginning of the quarter, amid the gradual improvement in the prospects of global economic recovery, given the vaccination rollouts, as well as due to the supply constraints coming from OPEC+ producers' control over the quantity available on the market. Against this background, the oil barrel price rose from approximately USD 50 at end-2020 to approximately USD 70 in early March, decreasing slightly thereafter. The impact on consumer prices was fuelled by the statistical effect associated with the sharp fall in the oil price in the first part of 2020, at the onset of the COVID-19 pandemic, dropping out from the calculation (Chart 1.2). The natural gas price followed closely the trajectory of the crude oil price; apart from the common drivers, the natural gas market was additionally affected by the temperatures below seasonal averages recorded this winter in several parts of the world, including Europe. Even if the prices charged to end-users do not yet reflect this trend, as contracts are usually concluded for longer periods (one year on average), an upward adjustment may appear in the following period (Chart 1.3).

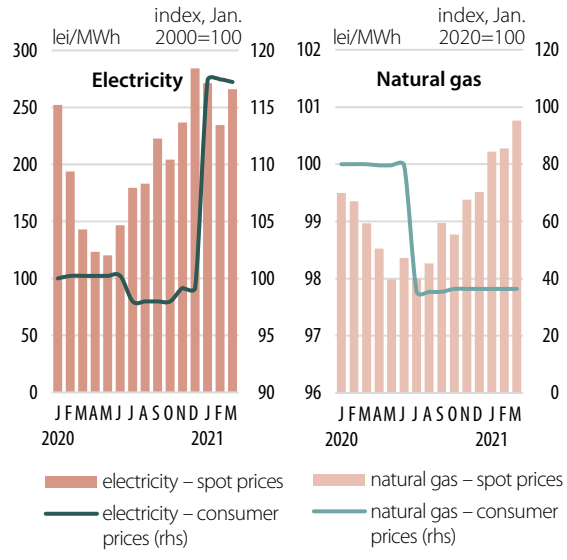
[1] For the purpose of the economic analysis included in the NBR's reports, the component of energy prices in the consumer basket is made up of fuel, electricity and natural gas prices. These were grouped starting with 2021 given the full liberalisation of the electricity and natural gas markets, the prices of these categories of goods being eliminated from administered prices. By contrast, heating prices will continue to be analysed under administered prices.

Chart 1.2. Oil and motor fuel prices



Source: NIS, Bloomberg

Chart 1.3. Electricity and natural gas prices



Source: NIS, OPCOM, Romanian Commodities Exchange

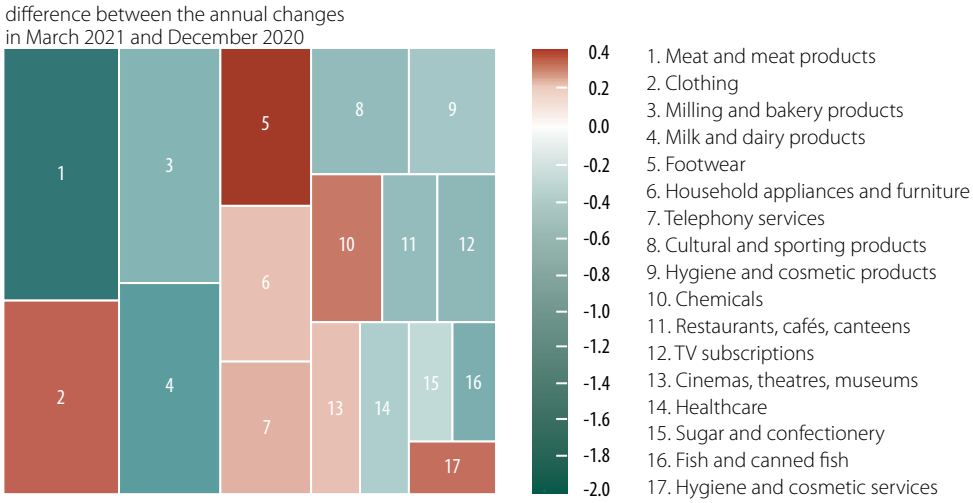
Almost as important was the influence exerted by the full liberalisation of the electricity market for household consumers as of 1 January 2021, while previously the ratio of consumption provided by the free market to that provided by the regulated market had been approximately 40:60. The difference between the price on the free market and the one paid by consumers on the regulated market widened considerably over the past two years, as only the former reflected the worsening market conditions (See Box 1 "Liberalisation of the electricity market for residential consumers: overview and current developments" in the March 2021 *Inflation Report*). Specifically, the sudden alignment of the two price levels led to a spike in the average price paid by household consumers, contributing by almost one percentage point to the pick-up in CPI inflation.

Remaining in the area of exogenous prices, relatively significant disinflationary contributions came from volatile food prices, as well as tobacco product prices. In the former case, the stronger deflationary trajectory of VFE prices was favoured by the further constraints on the activity of the hospitality industry, while in the latter case, the disinflationary contribution is temporary and owes to the slightly different calendar for the hikes in excise duty being passed onto the final price of a packet of cigarettes in 2021 compared to the previous year.

The annual adjusted CORE2 inflation rate continued to decrease at a relatively swift pace in the first three months of 2021, more than half of this decline being however attributed to the favourable base effect associated with the sharp increase in pigmeat prices in 2020 Q1, in the context of the African swine fever. Beyond this statistical effect, the particularity of the current pandemic crisis further leaves an imprint on both supply and demand unevenly. Hence, companies that are more labour-intensive or whose activity relies heavily on human interaction are more strongly affected by costs for pandemic management and labour costs. At the same time, the change in consumer behaviour generates opposite effects on the prices of various goods and services included in the consumer basket. Specifically, market services, which involve longer physical interaction, have remained the most affected both by restrictions applied to flatten the virus curve, and by consumer wariness to access them for reasons of sanitary precaution. As a result, the annual growth rates of the prices of these services mainly decelerated during 2021 Q1. However, the alleviation of the medical crisis, due to

the progress of vaccination rollouts, will allow the level of activity to rise, which, in turn, may lead to a pick-up in inflation across these segments, amid economic agents' attempts to recover a part of the losses incurred since the onset of the pandemic.

Chart 1.4. Price developments for the main items in the adjusted CORE2 inflation basket



Note: The chart shows items holding about 84 percent of the core inflation basket in 2021. A rectangular area is proportional to the item's share in adjusted CORE2, while the colour intensity is proportional to the annual change in the price.

Source: NIS, NBR calculations

As for the food component, lower demand from the hospitality industry, related to the wholesale segment, further resonated in the retail segment, driving a slightly disinflationary trend in this category of goods[2], despite cost pressures generated by the 2020 agricultural year, which was extremely unfavourable. On the other hand, the redistribution of a part of household income, which could not be spent for services, to the acquisition of non-food items (durables and semi-durables) contributed to robust developments in sales, somewhat spurring inflation on this segment (+0.1 percentage points to 2.6 percent), (Chart 1.4). Traditionally, this consumer basket component is characterised by an inertial trajectory, although significant price increases and decreases could be identified at microeconomic level (see Box).

Price rigidity in Romania: evidence based on microeconomic data

Introduction

The topic of price rigidity is highly relevant for central banks, given its influence in terms of monetary policy effects on the real sector. In fact, in macroeconomic modelling, mechanisms such as "price setting a la Calvo" or the Philips curve play a key role in how the economy responds to various kinds of shocks. The origin of these mechanisms lies in prices exhibiting rigidity at microeconomic level, i.e. under the action of different types of costs (menu costs, information costs, costs

2 Even after excluding the aforementioned statistical effect.

of damage to customer relations, etc.), firms often choose to keep their prices unchanged, even if those levels do not ensure (any longer) the optimisation of benefits.

The availability of microeconomic data is a major advantage in the study of the aforementioned topic. Caplin and Spulber (1987) showed how different mechanisms acting at the firm level have, under certain conditions, similar implications at the aggregate level. Thus, assessments based solely on macroeconomic data may lead to inaccurate findings, and economic policymakers will find it difficult to anticipate the implications of a change in those conditions. However, the use of information at individual level requires important preliminary processing steps, given the aim to remove developments that are pure "noise" and preserve the economically significant ones.

This analysis sets out to provide some key information regarding domestic price rigidity, based on an extensive dataset covering the prices of goods and services in the CPI basket. Drawing on the literature, the analysis also aims to make a comparison between the local and euro area situations, and hence to provide a useful perspective in the context of Romania's adoption of the single European currency.

Assessment of consumer price rigidity

Description and preliminary processing of data

The analysis of consumer price rigidity was carried out using a monthly database provided by the National Institute of Statistics, covering the period from January 2015 to December 2018 and related to all the goods and services included in the CPI basket. This means approximately 5 million observations, each comprising the month of the observation, the COICOP code[3] of the product, the name, the unit of measurement, the collected price, the anonymised code of the shop and the county in which the shop is located. At the most disaggregated level, there are almost 2,000 product codes and the geographical size covers 742 shops across all counties in Romania.

The first step in data processing was to remove the non-uniquely identifiable items in a given shop in a given month, as there are cases in which these observations contain different prices – for example, if there are several products whose characteristics fit the variety description. The next step was to manage the cases where an item is no longer in the stock of a particular supplier and then becomes available again after a number of months. There are two possibilities: (i) the item is back in stock at the same price, in which case the approach taken was to impute the observed price in the months when the item was out of stock; (ii) the item is back in stock at a different price, in which case the choice was to ignore the change, since the month when it occurred cannot be determined with certainty among the out-of-stock months.

3 "The classification of individual consumption by purpose" is the standard used to describe household expenditure in order to define the components of the representative basket of goods and services.

Table A. Descriptive statistical indicators for the distribution of price changes

	Distribution of price changes (both non-zero and zero changes)	Distribution of non-zero price changes
No. of observations	4,735,527	559,741
Average	0.1%	1.1%
Standard deviation	0.035	0.102
Skewness	1.01	0.07
Kurtosis	46.7	5.5
p1	-11.9%	-29.0%
p5	0.0%	-15.4%
p10	0.0%	-10.5%
p25	0.0%	-3.0%
p50	0.0%	0.6%
p75	0.0%	5.0%
p90	0.0%	12.8%
p95	1.4%	18.9%
p99	14.3%	31.8%

Source: NIS, NBR calculations

Another important step in primary data processing dealt with addressing situations where discounts are applied. Their presence can be seen essentially as generating volatility and reducing price stickiness, without having a fundamental impact, however, in terms of inflation – the discount is applicable in general for a short, predetermined period and then the price returns to its initial level. The observations covering price discounts were removed via the symmetric "V-shape" filter from Nakamura and Steinsson (2008). The first filtering stage consists in identifying those situations where, following a reduction, the price returns exactly to its initial level within a few months.

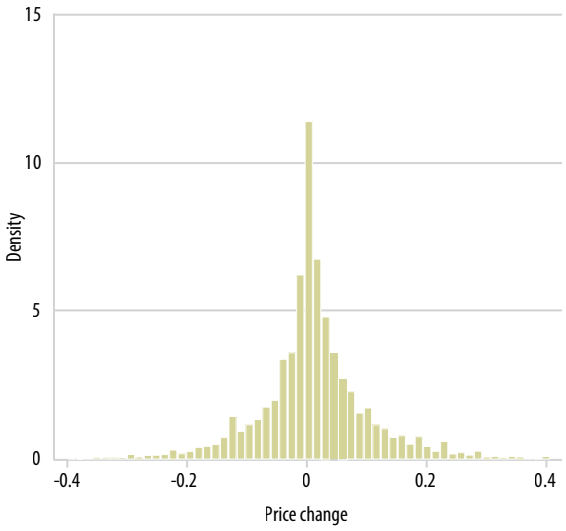
The second stage involves replacing the discounted price(s) with the initial one and hence assuming zero price changes through the lens of the fundamental analysis of price rigidity. A 3-month filtering period was chosen for Romania, while longer periods produced marginal changes in results. The symmetric filter – which identifies a discount only if the price returns exactly to its initial level – has the advantage that, for items with volatile prices, it avoids the simple condition of the price going back above the level seen in the discount months, as this could lead to the detection of fake sales if prices fell from inherent causes in that period. The disadvantage of this approach is that sales will not be identified when a price change occurs immediately after the discount months.

Finally, the observations that were outliers in terms of the size of the month-on-month price change, namely those outside the range from the 1st percentile to the 99th percentile of the distribution of non-zero price changes, were removed.

The result was a database of over 4.7 million observations, most of them covering situations where the price remained unchanged from one month to the next – only about 0.6 million observations include non-zero price changes. Table A comprises some descriptive statistical indicators for the distribution of all price changes (which includes both zero and non-zero price changes), as well as for the distribution of the non-zero price changes; the latter's shape is depicted in Chart A.

Several preliminary findings can be drawn from this information. First, the ratio of the total number of non-zero changes to the total number of observations indicates a roughly 12 percent (unweighted) monthly frequency of price changes,

Chart A. Distribution of non-zero price changes



Source: NIS, NBR calculations

i.e. most of the prices valid at a given moment in time are the same as in the preceding month, changes being reported only in 12 percent of cases, on average. The mean and median of the distribution for non-zero price changes are in positive territory, which implies that price increases are more prevalent than price decreases; however, the 1st quartile is negative, indicating that price cuts also have a relatively high frequency. Moreover, it can be assessed that, relative to the inflation rate, the size of the changes is significant – according to the information in the table regarding the distribution tails, one fifth of the adjustments are either price decreases of more than 10.5 percent or price increases of more than 12.8 percent. By comparison, the monthly CPI inflation rate over the same period ranged between -2.95 percent and 1.3 percent.

Results

The aforementioned average frequency of price changes is calculated by including the VAT rate changes implemented over the period. The time span under review saw three significant VAT rate cuts: the reduction in the VAT rate on food in June 2015 and the lowering of the standard VAT rate in January 2016 and in January 2017. These decisions are good opportunities for identifying the relevant microeconomic mechanisms of the price-setting process, but the significant number of large shocks in a relatively small amount of time may distort assessments about the "typical" consumer price behaviour.

Table B. Frequency and size of price changes for certain categories of products in the CPI basket

	Processed food	Unprocessed food	Energy	Non-food items excl. energy	Services	Total	Adjusted CORE2
Frequency of price changes	21.1	41.0	46.4	15.3	15.4	24.0	16.2
Frequency of price increases	14.3	23.3	27.0	10.4	9.7	14.5	9.8
Frequency of price decreases	6.8	17.7	19.4	4.9	5.7	9.5	6.4
Size of price increases	4.9%	7.5%	4.0%	6.7%	8.1%	6.7%	6.0%
Size of price decreases	-4.7%	-7.3%	-3.6%	-7.1%	-6.5%	-6.3%	-5.6%

Note: The adjusted CORE2 aggregate is a proxy derived by excluding from the CPI basket food items with volatile prices, energy, tobacco products and alcoholic beverages, as well as services with administered prices, given that, in the latter case, not all categories could be identified precisely.

Source: NIS, Eurostat, NBR calculations

Furthermore, the previous calculations took into account, in an undifferentiated manner, the goods and services in the database. However, one could argue that, for instance, the price rigidity of meat products is more relevant for the overall picture than that of the passport fee, whose share in the CPI basket is less significant. This is all the more relevant as the frequency of price changes is highly heterogeneous across the different components. Therefore, in order to have as accurate a picture as possible of consumer price rigidity at aggregate level, as well as in individual categories, adjustments were made so that the frequency of price changes should take into account the weight of the products in the CPI basket and the influence of VAT rate changes be removed (Table B).

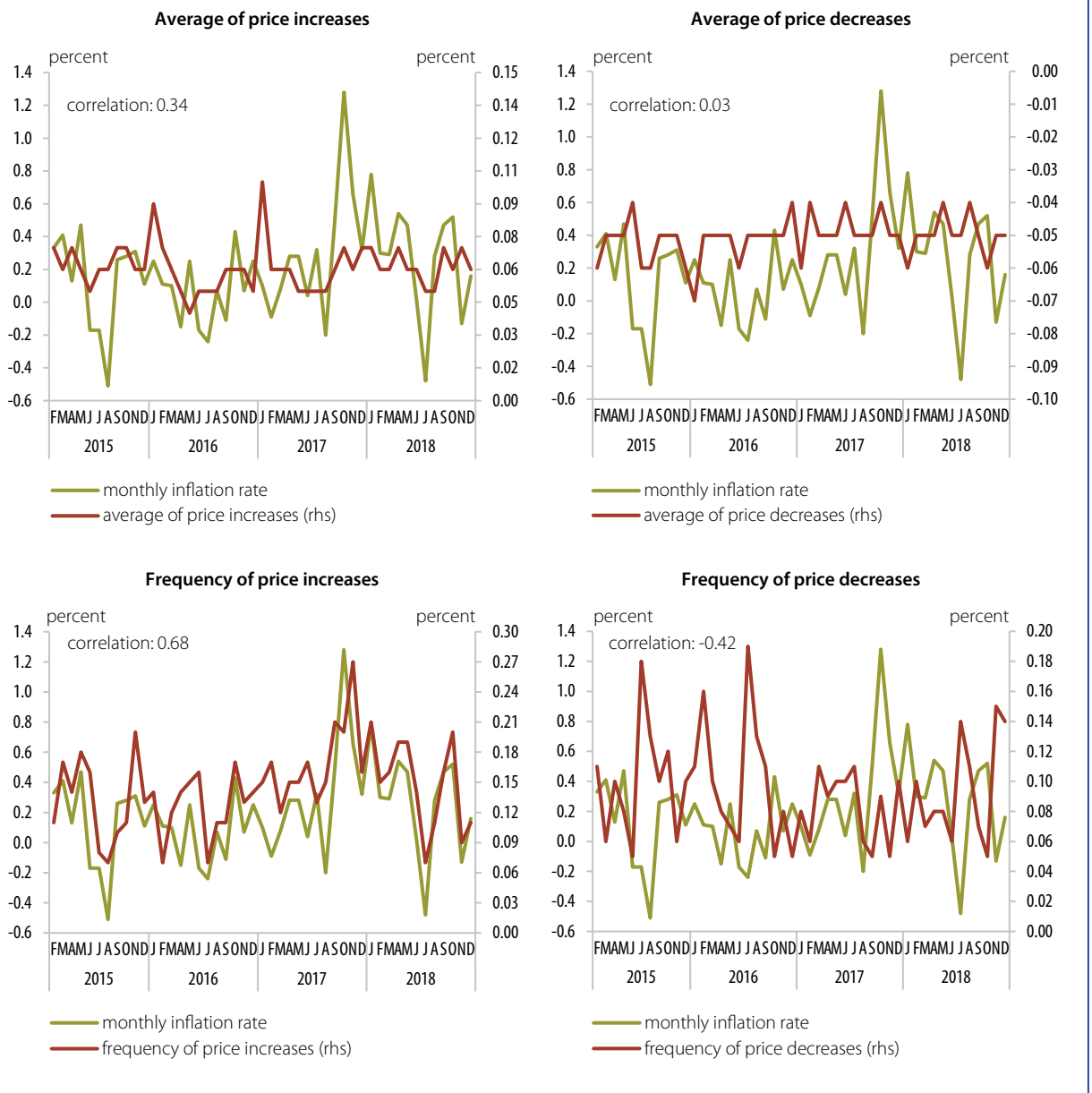
Food items exhibit greater price flexibility, in particular the vegetables, fruit and eggs (VFE) component, which is not necessarily surprising, given that these goods belong to the category of items with volatile prices. The said category also includes fuels, which contributes to accounting for the high level of price flexibility for energy as well. The cases under discussion are notable for the significant influence of commodity prices (including wholesale prices of unprocessed food items) on final prices and the volatility of the former, together with that of the exchange rate, and the specific perishability of the VFE component lend flexibility to consumer prices. Turning to processed food items, the more complex cost structure of the food industry than that of the unprocessed food sector reduces the impact of international commodity price volatility on final prices, their flexibility remaining however quite high in comparison with non-food items (excluding energy) and services. In the latter case, price flexibility would be much lower (6.7 percent frequency) if it were not for the influence exerted by telecom services (an important subcomponent), whose prices are largely indexed to exchange rate movements. At aggregate level, the significant share of food and energy in the CPI basket leads to higher price flexibility as compared with the corresponding value of the unweighted indicator, the jump being sizeable, to approximately 24 percent. Thus, the structure of the CPI basket may be the source of noticeable differences between consumer price rigidity in two different economies, even though the correspondent business sectors are characterised by similar price-setting parameters.

According to the aforementioned findings, price changes in the available set of data are mostly price increases. Nevertheless, decreases are also fairly widespread, their share (adjusted for the weight of each category in the consumer basket) reaching around 40 percent. This result also holds for the main groups of the CPI basket, which suggests that the market for goods and services operates smoothly as a whole, meaning that there is a competitive environment in which companies have to lower their prices rather frequently for reasons related to market share. In turn, Copaciu *et al.* (2010) and Iordache and Pandioniu (2015) attest to the prevalence of a competitive environment in the domestic economy.

Price cuts are fairly common in the case of services as well, even occurring somewhat more frequently than for processed food items or non-food items (excluding energy), which mirrors however, to a great extent, the linking of telecom services prices to the exchange rate. The services sector probably exhibits lower competition intensity, given that some activities cannot be traded internationally.

It is not only the frequency of price changes that influences the inflation rate, but also their size. The breakdown shows large – both upward and downward – movements in the CPI items. Therefore, the inflation rate is the result of numerous opposite contributions, which partially offset each other, this being the case for both CPI and its main components. Given that all four possible combinations of frequency/average size of price increases/decreases appear to be relevant for the headline inflation rate, the question naturally arises as to which of them is the most important (Chart B).

Chart B. Frequency/average size of price changes and the inflation rate



Source: NIS, NBR calculations

The frequency of price increases has the strongest correlation with the inflation rate. Thus, more than often the pick-up in inflation from one period to another stems from the occurrence of more price increases in the economy.

Chart B also highlights the seasonality of price-setting decisions. July and August typically witness fewer price rises and more price reductions, the opposite situation prevailing in October and November, but also in May. As far as the average size of price changes is concerned, the seasonal impact is less visible. The literature generally underlines the January effect as well. Nevertheless, the available data cover a period in which two standard VAT rate changes occurred, both of them being implemented at the beginning of the year, which limits the possibility of observing the said effect. The influence of the seasonal factor contributes to the time-dependent dimension of price setting. Mention should be made that such approaches intertwine with state-dependent ones – the most obvious case in point for the latter is perhaps the response of most prices under review to a VAT rate change. The two aforementioned papers concerning the price-setting mechanism in the Romanian economy testify, in turn, to the fact that local companies mix time- and state-dependent pricing strategies.

The findings presented above allow to substantiate a comparison between price rigidity in the Romanian and euro area economies. Thus, the price-setting parameters on the domestic front share some similarities with those for the euro area, as shown by comparing the evidence from this analysis with the results obtained by Dhyne *et al.* (2006), who examine the state of affairs in the Member States of the monetary union. According to the above-mentioned paper, in the euro area approximately 15 percent of prices change (weighted frequency) and there are substantial differences between product categories. Just as in Romania, energy prices are the most flexible, ahead of unprocessed food prices. The differences refer to services prices being distinctively stickier in the euro area, while the increased flexibility in the case of Romania comes from the frequent changes in some services prices due to their linking to the exchange rate. Price decreases are relatively common in the euro area as well, both at aggregate level (in around 42 percent of cases) and at the level of individual categories of goods and services. In addition, similarly to the domestic economy, price changes are sizeable compared with the inflation rate.

Conclusions

This analysis offers some coordinates of consumer price setting in the domestic market, presenting a short comparison in this respect between Romania and the euro area.

Thus, the CPI basket exhibits an adjusted average frequency of price changes of approximately 24 percent. This indicator varies quite considerably across different types of goods and services. Specifically, the volatility of international commodity prices lends flexibility to final prices for energy and unprocessed food, whereas prices for other categories of goods and services are stickier.

The breakdown shows that developments in the CPI items are slightly counterintuitive as compared with the headline inflation rate, whose (monthly) values are relatively moderate and nearly always positive. On the one hand, price cuts occur rather often, which indicates the prevalence of a competitive environment in the domestic economy (a conclusion also reached by other research papers), and, on the other hand, the size of price changes is sizeable. Therefore, in each period, the inflation rate is the result of numerous individual contributions that offset each other. From one period to the next, a step-up/slowdown in inflation most likely stems from the occurrence of a higher/lower number of price increases in the market.

The comparison between price rigidity prevailing on the domestic front and that in the euro area is relevant, given the process of joining the euro area. Different degrees of price rigidity would involve distinct paths of the inflation rate following a common shock, which would subsequently lead to welfare losses, as the decisions of the single monetary authority are calibrated depending on the situation prevalent at the monetary union level. The results obtained show that consumer price rigidity in the two economies has similar features. Even though prices change more often in the domestic economy, the share of price decreases is comparable, while the average size of price increases and price cuts is considerable compared with the inflation rate in both economies. Moreover, price flexibility in the Romanian economy would become lower once the euro is adopted and prices are no longer linked to the exchange rate.

The study of price rigidity based on microeconomic data has important advantages. This analysis provides some key information, a number of issues remaining however to be further examined. Subsequent research work will aim to capitalise on this database also in terms of substantiating some estimators of the pricing parameters in the domestic economy, hence providing a clearer picture of inflation dynamics (the shape of Philips curve respectively), of the monetary policy impact on the real economy and of the welfare costs entailed by price rigidity differences, assuming euro adoption. In addition, the mix of time- and state-dependent price-setting approaches raises questions on the extent to which the use of the Calvo mechanism may distort the response of inflation to economic shocks.

References

Caplin, A., Spulber, D. – "Menu Costs and the Neutrality of Money", *Quarterly Journal of Economics (102)*, 1987, pp. 703-726

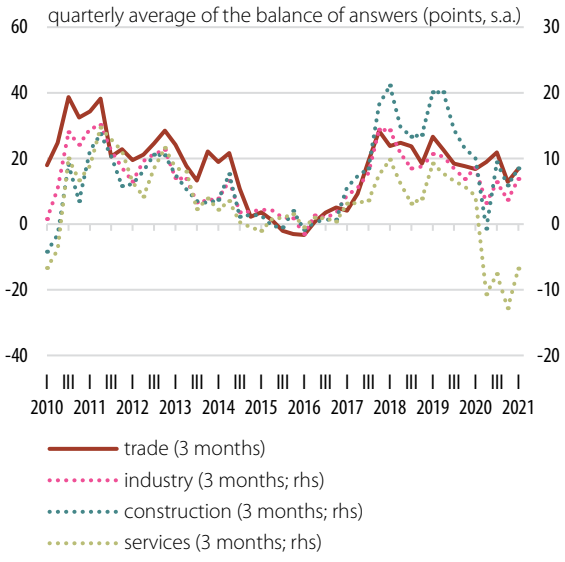
Copaciu, M., Neagu, F., Braun-Erdei, H. – "Survey Evidence on Price-setting Patterns of Romanian Firms", *Managerial and Decision Economics (31)*, 2010, pp. 235-247

Dhyne, E., Álvarez, L., Le Bihan, H., Veronese, G., Dias, D., Hoffmann, J., Jonker, N., Lünnemann, P., Rumler, F., Vilmunen, J. – "Price Changes in the Euro Area and the United States: Some Facts from Individual Consumer Price Data", *Journal of Economic Perspectives (20)*, 2006, pp. 171-192

Iordache, Ş., Pandioniu, L. – "The Price-setting Behaviour of Romanian Firms", National Bank of Romania, *Occasional Papers* No. 10, 2015

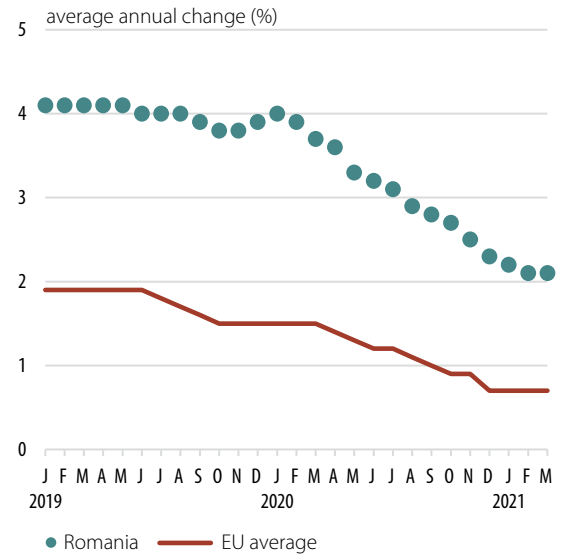
Nakamura, E., Steinsson, J. – "More Facts about Prices", supplement to: "Five Facts about Prices: A Reevaluation of Menu Cost Models", *Quarterly Journal of Economics (123)*, 2008

Chart 1.5. Expectations on price developments



Source: EC-DG ECFIN

Chart 1.6. Average annual HICP



Source: Eurostat

Short-term inflation expectations witnessed an upward adjustment in the first three months of the year for all categories of economic agents. Nevertheless, the services sector further expects price declines on a three-month horizon, while the other sectors expect positive values, around the long-term averages (Chart 1.5). Analysts' expectations went up marginally, yet remained in the upper half of the variation band of the target, both on the one-year and two-year horizons.

The average annual CPI inflation rate stabilised around 2.6 percent, while average annual inflation calculated based on the Harmonised Index of Consumer Prices (HICP) contracted by 0.2 percentage points from December 2020, down to 2.1 percent[4]. Romania remains, however, among the EU Member States with the highest average HICP inflation level, behind Czechia, Hungary and Poland, with the differential versus the EU average falling marginally to 1.4 percentage points (Chart 1.6).

In March, the annual CPI inflation rate exceeded the forecast by 0.11 percentage points, as a result of underestimating the trajectory of fuel prices, due to both a stronger rise in the Brent oil price and an unexpected appreciation of the US dollar. At end-2021 Q1, adjusted CORE2 inflation reached the value anticipated in the previous *Inflation Report*.

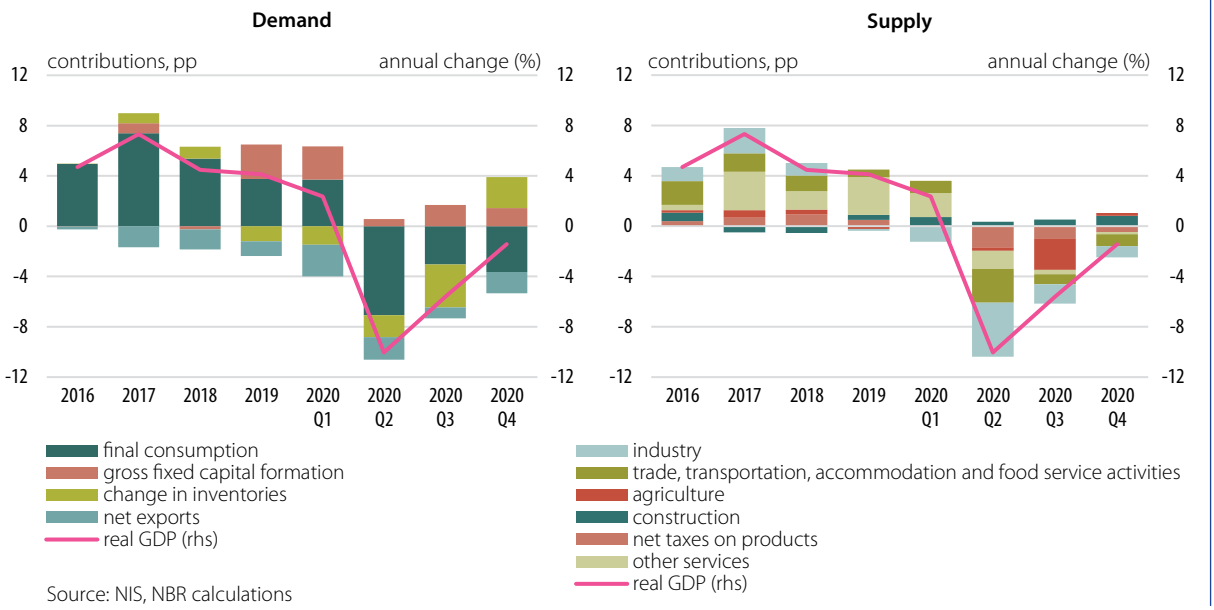
4 The difference between the two inflation measures (CPI vs. HICP) is largely attributed to the fact that electricity holds a lower share in the consumer basket related to the harmonised structure, given the different data sources used to determine the weights: the HICP weights rely on both national accounts data and the results of the Household Budget Survey (HBS), while the CPI weights are derived only based on the HBS.

2. Economic developments

1. Demand and supply

Despite the second wave of infections that hit the world in the autumn of 2020, the measures adopted by the authorities no longer had effects as strong as those of the measures taken in spring, the economies generally continuing on a recovery path, *inter alia* with the further substantial support from national public funds. It is also the case with Romania, where real GDP declined at a slower pace in annual terms (to -1.4 percent in Q4, Chart 2.1). Significant contributions came from industry, under the influence of the step-up in external demand, and construction, which preserved its role as catalyst for investment. Services remained at the opposite pole, being by far the sector the most severely affected by the restrictions imposed during the current crisis (Chart 2.2).

Chart 2.1. Contributions to economic growth



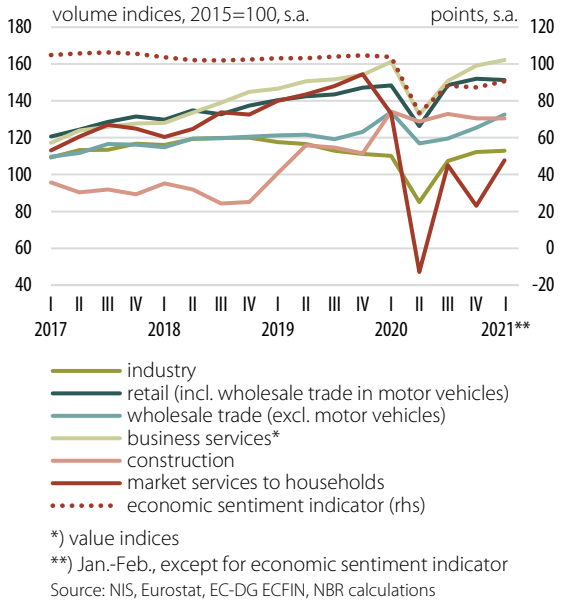
Source: NIS, NBR calculations

Consumer demand saw a slower pace of recovery in 2020 Q4 (annual decrease of 5.7 percent), the enforcement of new restrictions amid the resurgent pandemic affecting mainly market services to households (drop by around 46 percent, annual change), particularly those involving longer physical interaction (such as recreational activities, gambling, accommodation and food service activities).

At the same time, trade turnover volume expanded further (although at a slightly softer rate versus the previous quarter to approximately 2.1 percent). Its increase was supported, on the one hand, by the favourable evolution of household

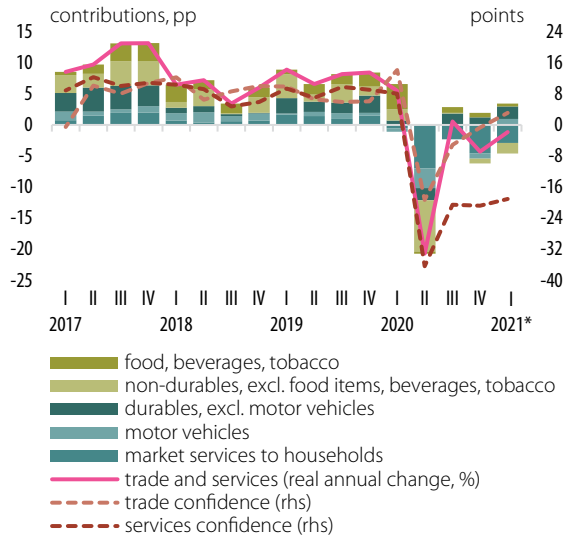
income, along with the redistribution of some market services-related expenses towards purchases of goods, and on the other hand, by the efforts of trade companies to preserve and consolidate their market share, given the new economic and social coordinates. These actions included a large number of promotional campaigns, customer loyalty programmes, enhanced cooperation with fast delivery companies, a further high pace of network expansion. The adaptation efforts of large retailers fuelled sales of food items in Q4 as well (annual growth of 2.8 percent), the market share of modern retailers in total food trade gaining approximately 4 percentage points in 2020 as a whole. Purchases of furniture, household appliances and DIY products also stayed on an uptrend, being spurred by the longer time spent at home (13.8 percent annual rise). Conversely, the limited access to recreational services and the large-scale implementation of telework resulted in the contraction of demand for clothing and footwear in Q4 (-4.6 percent in annual terms), (Chart 2.3).

Chart 2.2. Economic sectors



*) value indices
**) Jan.-Feb., except for economic sentiment indicator
Source: NIS, Eurostat, EC-DG ECFIN, NBR calculations

Chart 2.3. Trade and services to households



*) Jan.-Feb., except for economic sentiment indicator
Source: NIS, NBR calculations

The entry into a new stage of restrictions, against the background of the larger number of infections in early 2021, will most likely entail the slowdown in consumer demand recovery in 2021 Q1. Specifically, after the slight easing of restrictions at end-January, which allowed the partial re-opening of indoor recreational facilities, the process saw a reversal, along with the adoption of new provisions to reduce the working hours of economic agents. Over a longer horizon, the improved population's access to vaccines and the keeping in place of government support schemes, which together help increase household confidence, will most likely lead to a rebound in consumption, an additional financing source being the funds saved throughout 2020 (the average balance of household deposits rose by approximately 11 percent in real terms).

In 2020 Q4, the general government budget deficit saw a renewed widening, up to lei 34.6 billion (3.3 percent of GDP), albeit amid a relative contraction in the differential versus the reading in the same year-ago period (lei 21.6 billion, i.e. 2.0 percent of GDP)[5]. Its increase against 2020 Q3 was the result of the substantial growth of

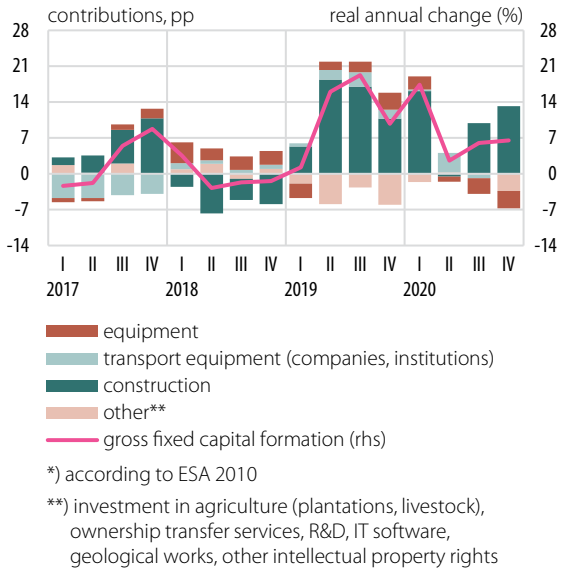
5 Given that the budget deficit in 2020 Q3 reached lei 22.1 billion, i.e. 2.1 percent of GDP, versus lei 7.0 billion, i.e. 0.7 percent of GDP, in the same year-ago period.

total budget expenditure[6], fuelled both by spending for projects financed from non-repayable external funds, and by capital expenditure, spending on goods and services[7] and other transfers, whose total impact was offset only to a small extent by that of lower interest expenses[8].

Total budget revenues witnessed an increase as well[9] – primarily on the back of disbursements from the EU, as well as receipts from VAT[10], corporate income tax and social contributions –, albeit more subdued, *inter alia* due to lower non-tax receipts[11]. Under the circumstances, in 2020 the general government budget deficit widened to lei 101.9 billion, i.e. 9.7 percent of GDP, from lei 48.6 billion, i.e. 4.6 percent of GDP, in the previous year.

In 2021 Q1, the general government deficit dropped to lei 14.6 billion (1.3 percent of GDP)[12], amid the faster annual dynamics of total budget revenues[13], *inter alia* due to a base effect[14], and the further decline in the growth rate of government spending[15].

Chart 2.4. Investment*



*) according to ESA 2010

**) investment in agriculture (plantations, livestock), ownership transfer services, R&D, IT software, geological works, other intellectual property rights

Source: Eurostat, NBR calculations

Gross fixed capital formation saw a 6.5 percent growth in annual terms in Q4, ending 2020 with a surprising evolution for a year of crisis. The trend was ascribed to investment in construction, whose volume continued to expand swiftly (by around 20 percent[16]). In 2020 as a whole, the high growth rate of construction, a sector less affected by pandemic restrictions, points to a context significantly different from that of the 2009 crisis. However, the particular features of the current recession had an uneven influence on the main segments and also led to the emergence (or acceleration) of some structural changes.

Civil engineering works expanded rapidly in 2020 Q4 as well (by 16.3 percent in annual terms), under the impact of the 2014-2020 EU multiannual financial framework nearing its end – an effect

6 The real annual growth rate of total spending decelerated slightly, however, to 11.2 percent, from 15.9 percent in 2020 Q3.

7 Nevertheless, in annual terms, both capital expenditure and spending on goods and services posted declines.

8 They also contracted in annual terms.

9 At the same time, the real annual growth rate of total budget revenues continued to improve slightly, re-entering positive territory marginally (0.4 percent from -0.8 percent in the previous quarter).

10 Whose real annual dynamics turned positive again.

11 They also contracted in annual terms, most likely due to lower receipts from dividends.

12 Budget deficit also narrowed compared to that recorded in the same year-ago period (lei 18.1 billion, i.e. 1.7 percent of GDP).

13 To 15.2 percent in real terms.

14 Generated by the sharp contraction in budget receipts in March 2020 owing to the outbreak of the COVID-19 pandemic and to the tax relief measures to delay the payment of fiscal obligations in this context.

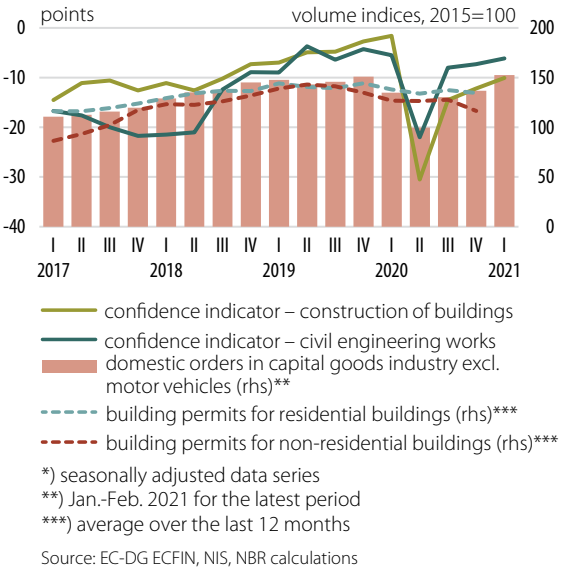
15 Whose real annual dynamics fell to 7.9 percent.

16 According to national accounts data on gross fixed capital formation.

that will most likely be felt in 2021 too, based on the evolution seen in the previous financial framework (Chart 2.4).

As for the construction of buildings, maintaining and even easing the access to bank financing enabled the projects in progress (large projects in particular) to carry on, especially in the residential and the industrial and logistic segments. In the former case, investment increased by approximately 16 percent in Q4, being further fuelled by the moderately upward trend in household income (with a contribution from government support schemes), concurrently with the rebound in lending – on the back of the slight reduction in costs, *inter alia* following the launch of the "New Home" programme in September. The prospects remain favourable for 2021, in light of the further improvement in households' financial standing as the economy recovers and of the extended support from the authorities, in the form of financial relief measures for job retention (until June) and the launch of the "New Home" programme for this year (in March). These are likely to consolidate the confidence of developers as well, as shown by the significant number of large projects that are ongoing in the first part of 2021.

Chart 2.5. Signals on short-term prospects for investment*



*) seasonally adjusted data series
**) Jan.-Feb. 2021 for the latest period
***) average over the last 12 months

Source: EC-DG ECFIN, NIS, NBR calculations

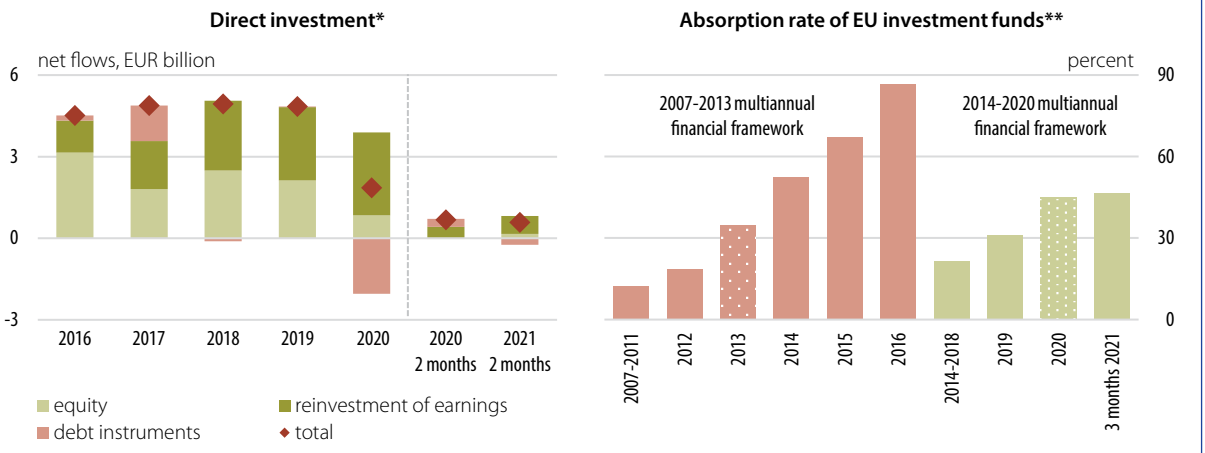
The industrial and logistic segment also reported a brisk investment growth in 2020, being boosted by the demand from sellers of staples and online retailers. The online trade system is in full bloom, due to the development of online companies and the large physical retailers' shift to the online environment. The upbeat expectations of investment in storage facilities are also grounded on the need for the technical and security streamlining of the existing facilities (Chart 2.5).

Moreover, in the retail segment, the pandemic context helped strengthen a trend previously manifest, namely investors' increasing preference for smaller-sized projects that incur lower risks. In particular, approximately 80 percent of the new spaces that will be delivered this year are estimated to fall into the category of proximity stores or retail parks, which are especially present in cities where modern trade networks are less developed (according to Colliers Romania).

This trend is thus indicative of one of the real estate segments affected by the new economic and social coordinates imposed by the health crisis, i.e. shopping malls, to these adding investment in office buildings and hotels. The restrictions imposed by authorities on the movement of persons (including the expansion of telework), the self-imposed mobility restrictions for reasons of health prudence, as well as the uncertainty surrounding the future epidemiological developments resulted in the large-scale discontinuation of projects carried out in these segments and in the postponement of new projects.

Equipment purchases (except transport equipment)[17] remained on a steep downtrend in Q4 too (-12.1 percent, annual change), given that own funds (the main financing channel of capital investment in the corporate sector) were severely adjusted, amid the disruptions caused by health crisis-related restrictions and the uncertainty surrounding the recovery of activity. Conversely, the resort to bank loans grew significantly higher, as suggested by the more than 60 percent annual increase in the volume of new corporate loans in lei with a maturity of over 5 years granted in 2020 H2 and in January-February 2021. The faster growth occurred amid the downtrend in interest rates, alongside the financial support measures provided by the government to the affected companies. Among these, it is worth noting the investment loan guarantee schemes – "IMM Invest Romania" and "IMM Leasing" (the former, valid until 30 June 2021, being supplemented by the "AGRO IMM Invest" sub-programme), as well as the allocation of investment grants to SMEs, in amounts between EUR 50,000 and EUR 200,000.

Chart 2.6. Direct investment and absorption of EU investment funds



*) the positive values point to net incurrence of liabilities higher than net asset purchases

**) cumulative indicator since the beginning of the financial framework; the periods marked are the end years of each financial framework; funds from the Cohesion Fund (CF), European Regional Development Fund (ERDF), European Social Fund (ESF) – 10%, European Agricultural Fund for Rural Development (EAFRD) – 50% and European Maritime and Fisheries Fund (EMFF) – 50%

Source: NBR, MF

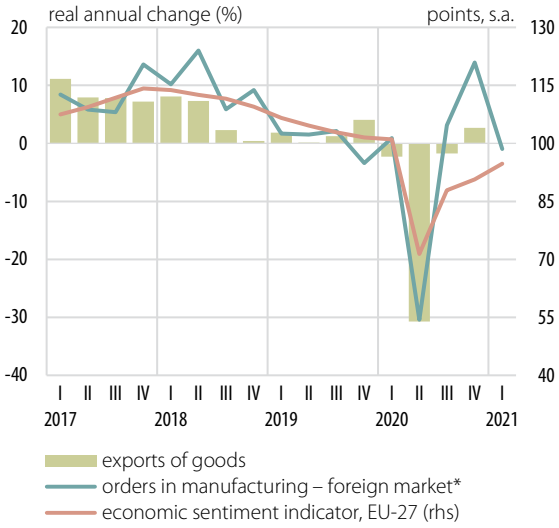
In addition to locally borrowed funds, the Romanian companies will be able to supplement own funds to finance capital investment by accessing non-repayable EU funds in the 2014-2020 financial framework. Moreover, in the next European financial framework (2021-2027), Romania will have the opportunity to access funds of almost EUR 80 billion, targeted to a large extent to the financing of investment projects in transport infrastructure, green transition and digitalisation. Even though the start of the new financial framework will be somewhat difficult, given the pace of fund absorption in the previous frameworks, investment over a shorter horizon could be additionally boosted by the condition that 70 percent of the grants provided under the Recovery and Resilience Facility[18] (about EUR 10 billion) should be committed by the end of 2022. An encouraging sign is also visible for foreign direct investment,

17 According to national accounts data on gross fixed capital formation.

18 The main channel of Next Generation EU for the recovery of European economies.

in light of the recovery of inflows in the form of equity, including the reinvestment of earnings, in 2020 H2 (up by approximately 10 percent in annual terms) and the continuation of this trajectory in the first two months of 2021 (Chart 2.6).

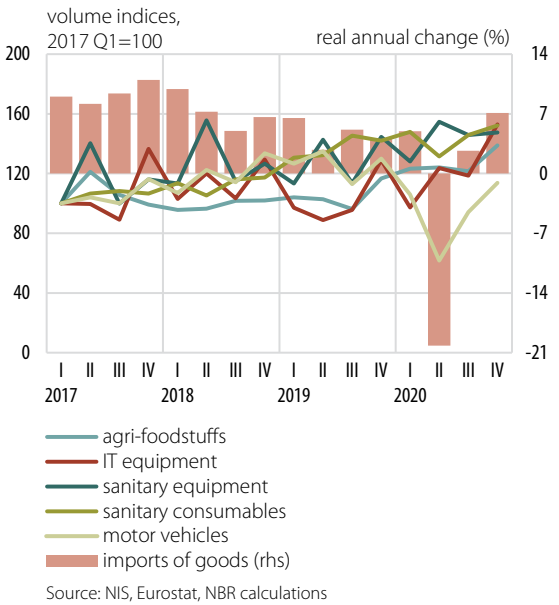
Chart 2.7. Exports



*) Jan.-Feb. 2021 for the latest period

Source: NIS, EC-DG ECFIN, NBR calculations

Chart 2.8. Imports



Source: NIS, Eurostat, NBR calculations

The further reinvigoration of global economic activity had a favourable effect on local exports of goods, the volume of which rose for the first time in annual terms in 2020 Q4 (2.7 percent). The upward trend will most likely persist in the period ahead too, amid the improvement in global economic sentiment. Nevertheless, this course will be further surrounded by uncertainty, the confidence gained from the progress in the immunisation of population losing ground to a renewed intensification of restrictions internationally, as a result of the higher number of infections in the first months of 2021 (however, the effect of these measures was not as strong as in the year before, impacting mainly the services sector). Furthermore, the international production chains are further exposed to temporary disruptions, such as that caused by the microchip crisis in February-March 2021, which hindered the activity of some major producers in the automotive and electronic industries (Chart 2.7).

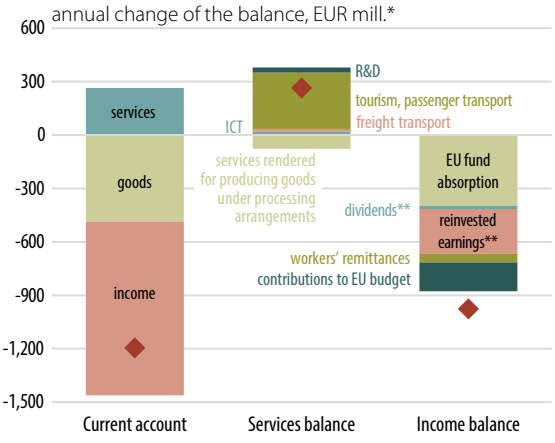
The favourable evolution of exports was largely driven by the rebound in global demand for motor vehicles (with a significant contribution from the Chinese market), which had an impact on exports of both motorcars (3.4 percent increase in volume in Q4) and motor parts, including electrical equipment and rubber products (annual growth paces ranging between 6.7 percent and 12.6 percent). Household appliances, communication equipment, chemical products, base metals and wood products made additional contributions to the growth of exports.

Due to the robust demand in certain consumer segments and the recovery of exports (amid the purchases of inputs used to manufacture products targeting external markets), imports of goods saw their real dynamics step up to 7.1 percent in Q4. Swift rises continued to be reported by imports of durables (particularly household appliances, furniture and light vehicles), agri-food commodities (as a result of poor crops in 2020) and motor parts (in line with the rebound in the automotive industry), base metals, electrical equipment. An upward trend was further seen in imports of pandemic-related products – sanitary materials

and equipment (volume rise of 6.4 percent, annual change), as well as computers and peripheral equipment (18.5 percent), (Chart 2.8).

Similarly to the previous quarters, the disequilibrium in the balance on trade in goods, caused by the negative gap between the dynamics of exports and imports of goods, was the main channel of the erosion in the current account by one third in 2020 Q4, as compared to the similar year-ago period. Similar developments took place in January-February 2021 and they will probably persist, as Romania's economic recovery brings a faster rise in imports, while domestic production is further faced with external competitiveness issues, particularly in the consumer goods segment. Behind the current account deficit widening stood also the primary and secondary income balances, but the determinants in this case are not likely to raise concerns. Specifically, the first of these, namely the increased outflows in the form of earnings reinvested by FDI companies, has a positive economic significance, since these amounts are registered as stable inflows in the balance-of-payments financial account and are one of the non-debt-creating sources of current account deficit financing. Moreover, the second factor – the relatively modest start in 2021 in the absorption of EU funds for agriculture and social objectives – will soon reverse its trend (the daily data released by the European Commission show the recovery to a large extent in fund absorption by the end of April). The balance on trade in services continued to increase, the pandemic-related restrictions translating in higher receipts from exports of ICT services and the contraction of international tourism expenditure (Chart 2.9).

Chart 2.9. Current account and key structural changes (2 months 2021)



*) the positive change points to an increase in surplus or a decrease in deficit

**) FDI companies

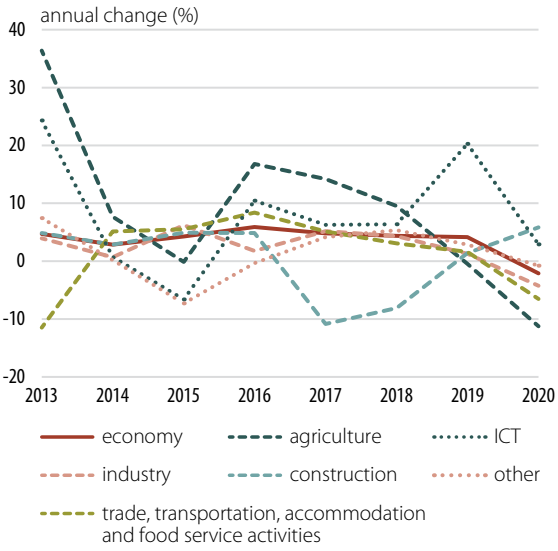
Source: NBR

Labour productivity

In 2020 Q4, the annual growth rate of labour productivity economy-wide stood at 0 percent, increasing however by 3.4 percentage points from the previous quarter and thus marking the return of the indicator close to the levels recorded before the onset of the health crisis. The positive trend seen in 2020 H2 was relatively broad-based across the European Union, despite the escalation of the second pandemic wave above the spring episode. According to an essay presenting a comparative analysis of the two waves of the pandemic in the euro area, the economic cost in output (and largely productivity) terms was over 50 percent smaller during the second wave. Among the factors supporting the more favourable developments in productivity were: the adaptation of production sites and sales units to meet stringent health security measures, the increasingly efficient uptake of remote work in working arrangements, and better targeted and calibrated measures to stop transmission of the virus owing to the additional information gathered after having studied it[19].

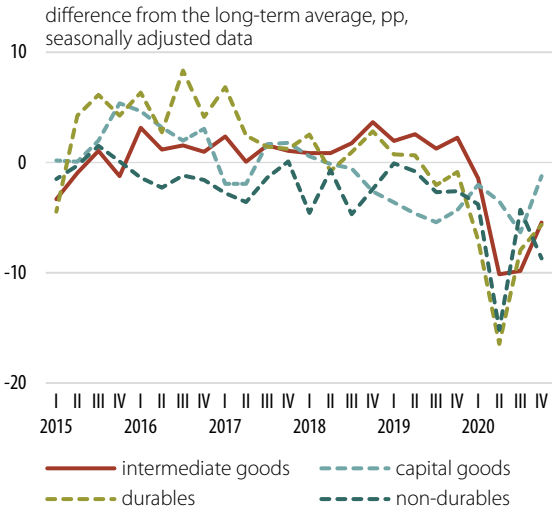
19 Blanchard, O. and Pisani-Ferry, J., *Persistent COVID-19: Exploring potential economic implications*, Peterson Institute for International Economics, 2021, Briefing 21-2.

Chart 2.10. Productivity of economic sectors



Source: NIS, NBR calculations

Chart 2.11. Capacity utilisation rate in industry



Note: The long-term average is calculated for 2005-2020.

Source: EC-DG ECFIN

In Romania, in 2020 as a whole, labour productivity declined by approximately 2 percent, as a result of the suspension of numerous activities during the state of emergency, as well as of the poor agricultural crops (Chart 2.10). Important positive contributions came from the construction sector, the nature of its activity allowing building companies to further operate relatively undisturbed even after the imposition of health security measures, and from the ICT sector, which seized the opportunity arising from the new epidemiological context with respect to accelerating the digitalisation processes worldwide. Labour productivity followed a negative trend in trade and the hospitality industry, where the high level of human interaction entailed elevated intermediate costs for meeting stringent health security measures, as well as in industry, which was deeply affected by the weak external demand during the first months of the pandemic.

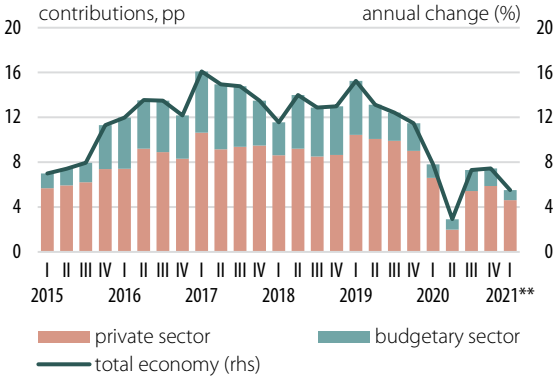
The latter sector stood however largely behind the recovery trend in labour productivity in the economy at year-end, the annual growth rate of the indicator hitting a three-year high in 2020 Q4. The favourable evolution of industry, ensured by its enhanced adaptability to the new constraints on activity, was underpinned also by its rebound at the EU level, mirrored by the two-digit positive annual dynamics of new external orders in the last three months of 2020. The step-up in demand was also reflected by the higher capacity utilisation rate, noticeable in the case of most groups of goods (Chart 2.11). Prospects for industrial activity remain bright, the data for January showing a renewed increase in labour productivity in annual terms, while the indicators available for the European market suggest the prevalence of optimism in 2021 Q1 (despite the escalation of the third wave of infections).

Labour market developments

The new intensification of the pandemic crisis and the tighter restrictions in late 2020 prompted, with a slight lag, a marginal deterioration in labour market conditions in the first months of 2021. Thus, government employment support programmes have further helped contain the negative effects and the prospects for 2021 Q2 are favourable.

The annual growth rate of average nominal gross wage earnings decelerated to 5.5 percent in January-February 2021 from an average of over 7 percent in the latter half of 2020. Apart from the decision to cap public sector wages, a similar strategy most likely guided the wage-setting behaviour in the private sector as well, given the highly uncertain environment at present (Chart 2.12).

Chart 2.12. Nominal gross wage earnings*



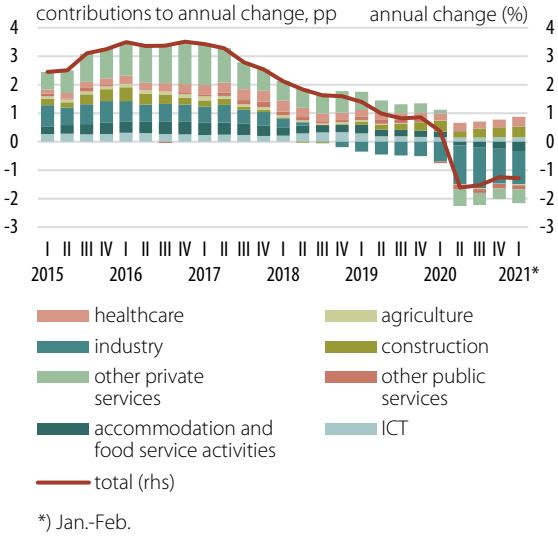
*) excluding the effect of the transfer of social security contributions payable by employers to the charge of employees as of 2018

**) Jan.-Feb.

Note: Values are rounded up to two decimals, in some cases differences being recorded between the sum of contributions and the total.

Source: NIS, NBR calculations

Chart 2.13. Number of employees economy-wide



*) Jan.-Feb.

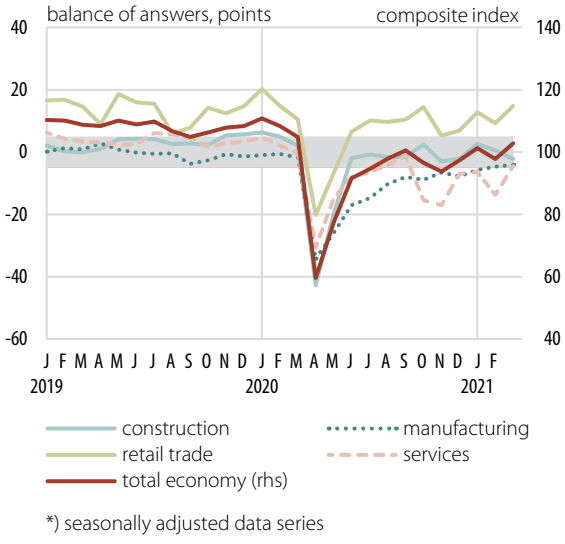
Source: NIS, NBR calculations

The restrictions introduced during the second wave of infections in 2020 Q4 slowed down, with a slight lag, the pace of recovery of jobs lost at the onset of the crisis, the annual decline in the number of employees economy-wide standing at -1.3 percent in January-February 2021 (-0.1 percentage points from 2020 Q4). The breakdown shows further mixed developments: larger downsizing of personnel occurred chiefly in the sectors directly hit by the COVID-19 pandemic crisis (accommodation and food service activities, air transport, arts, entertainment and recreation activities, as well as industry), whereas hiring continued in the ICT sector, postal and courier activities, construction, healthcare and the manufacture of pharmaceutical products (Chart 2.13). The registered unemployment rate remained around 3.2 percent, the level observed starting in mid-2020, while the monthly ILO unemployment rate stood at approximately 5.7 percent in early 2021. In the latter case, the value is not comparable with the previous ones (5.1 percent, on average, in Q4), given that the calculation methodology was changed to comply with the latest regulations applied to European statistics, which aim to ensure comparability of data series between EU Member States. As far as Romania is concerned, the change meant the exclusion of households producing agricultural goods exclusively or mostly for self-consumption from employed persons and, hence, from labour force, which thus declined by almost 500,000 persons. *Ceteris paribus*, this change involves a shift of the ILO unemployment rate approximately 0.3 percentage points higher than the trajectory indicated by the historical series, calculated in accordance with the old methodology[20]. Therefore, the recent developments would show a slight deterioration in the indicator from 5.5 percent (estimated value) in 2020 Q4 to 5.7 percent in January-February 2021.

20 According to the methodological explanations released by the NIS together with the press releases concerning the ILO unemployment rate for January and February 2021, the historical series will be revised to capture the methodological change over 2021.

The support schemes for working capital and investment, together with labour market support measures, have contributed to containing the negative effects of the COVID-19 pandemic on the economy and to preserving the labour force in the short term. The unemployment rate would most likely have been higher in their absence. Taking into account solely labour market programmes, in-house assessments, based on a counterfactual unemployment rate, which is calculated by adding to the number of unemployed that of employees benefiting from government support measures[21] under different scenarios, indicate an approximately 2 percentage point higher unemployment rate at end-2020[22].

Chart 2.14. Companies' expectations on the number of employees in the next 3 months*



*) seasonally adjusted data series

Source: NIS, EC-DG ECFIN

Over the short term (2021 Q2), the EC-DG ECFIN and Manpower surveys show an improvement in employment opportunities from the previous quarter (in both cases, the balances of answers continue to post lower values than in the same year-earlier period, yet the gap between these values and those in the pre-crisis period has narrowed markedly; Chart 2.14). The results of the EC-DG ECFIN survey point to a relative stability in the number of employees in construction, manufacturing and services, whereas in retail trade further recruitment is expected. Conversely, the Manpower Employment Outlook survey suggests a pick-up in employment in almost all economic sectors (except for construction). At the same time, the survey also shows that nearly all types of companies expect to hire new employees, with the exception of microenterprises, where the balance of answers remained negative, as the latter probably face more severe financial difficulties.

2. Import prices and producer prices on the domestic market

The uptrend in international commodity prices seen in the last part of 2020 steepened in 2021 Q1, causing the annual dynamics of industrial producer prices on the domestic market to return to positive territory. As for agricultural producer prices, the tensions stemming from the past year's poor crops have further underpinned faster growth rates for vegetal

21 In general, the measures referred to a furlough scheme during 2020 Q2 (on average, about 550,000 employees benefited from this scheme, receiving 75 percent of the gross wage, however without exceeding 75 percent of the average gross wage economy-wide), whereas for the remainder of the year the government pledged to cover 41.5 percent of the gross wage for a period of three months for the employees whose employment contracts are reactivated after having been suspended at the onset of the crisis (estimated at about 290,000, on average, in 2020 Q3).

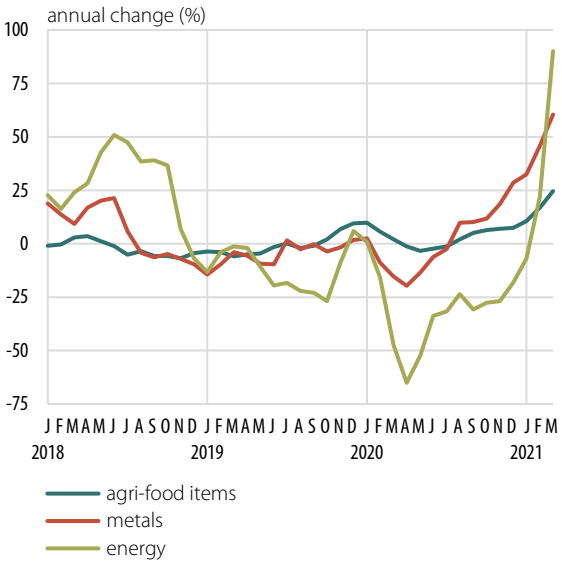
22 This exercise took into consideration several scenarios for the path of the unemployment rate, assuming a fluctuation range for the percent of beneficiaries of the measures that would have been made redundant had it not been for these measures, namely 10 percent, 25 percent, 50 percent and the extreme case of 100 percent, and the impact reported is the median of assessments.

products; however, a trend reversal is possible, given the favourable outlook for global agricultural supply in 2021. At the same time, labour costs and the specific expenses entailed by the measures to combat the pandemic have continued to fuel inflationary pressures.

2.1. Import prices

In 2021 Q1, the main commodity prices followed a steeper upward path (across-the-board rise in prices), further reflecting the favourable performance of global demand, as well as the optimistic expectations of its future prospects (Chart 2.15). Alongside the effects already generated by the information on the vaccination progress and by the unprecedented monetary and fiscal support measures adopted by the world's major economies stood the additional fiscal stimulus package in the US, announced by the new administration in the first half of March 2021.

Chart 2.15. International commodity prices



Source: World Bank, FAO, NBR calculations

In the energy sector, the Brent oil price increased at a faster pace in 2021 Q1, its annual dynamics reverting to positive territory (19.9 percent, from a contraction of over 30 percent in 2020 Q4). Apart from a significant base effect, the evolution reflected market optimism, the positive signals from manufacturing and the continuation of OPEC's policy to control output. After briefly trading at nearly USD 70 per barrel amid a spell of bad weather that temporarily affected production facilities in the US, the Brent oil price dropped to approximately USD 63 per barrel towards end-quarter. In its meeting at the end of March, the OPEC+ announced a schedule of gradual output increase, with an aim to support oil price stability. Moreover, international natural gas prices surged in annual terms in 2021 Q1 (even by more than 100 percent at EU level). Behind this trend stood the revival in industrial output, but also weather-related factors, namely temperatures below seasonal averages.

Furthermore, the annual growth rate of the aggregate index of metal prices (including iron ore) continued to climb in 2021 Q1, to 45.6 percent (from 19.7 percent in 2020 Q4 and 5.7 percent in 2020 Q3), the breakdown showing broad-based increases. These developments owe to the full recovery of China's output and the revival of manufacturing in advanced economies.

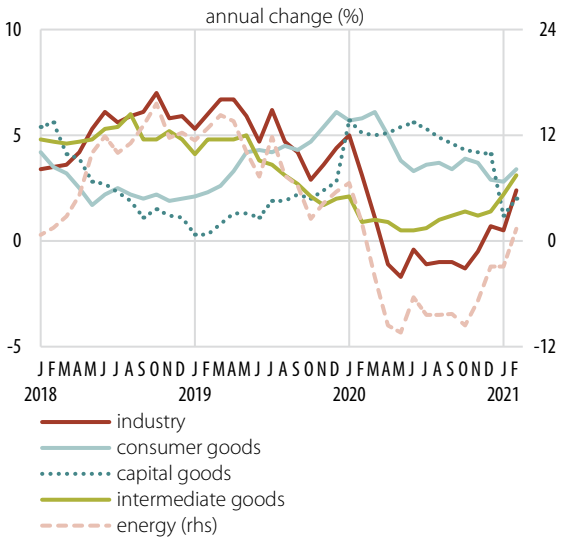
At the same time, food prices saw a steepening of the upward trend they had embarked upon since the latter half of 2020, the annual rate of change of the FAO food index reaching 17.2 percent in 2021 Q1 (from 6.9 percent in 2020 Q4). This reflects developments in cereals and oleaginous plants, and to a lower extent in sugar, driven mainly by the modest crops in several parts of the world (Europe,

the Black Sea region, the USA, Argentina) in 2020. However, March 2021 saw some slight corrections, once the outlook for global agricultural output in the current year improved. Meat prices contracted at a slower pace (-3.9 percent in 2021 Q1 compared to -11.1 percent in 2020 Q4). Most varieties of meat still report negative annual rates of change, but prices are on an uptrend, given the emergence of numerous bird flu cases in several European countries, the outbreaks of African swine fever in Germany and the increased demand from China in March.

The data available for 2020 Q4 show external prices to have had a softer deflationary impact, the unit value index of imports[23] rising slightly to 95.9 percent. The pass-through of this influence to domestic prices continued to be partly offset by the stronger appreciation in annual terms of the leu versus the US dollar, the main settlement currency of imported commodities. The uptrend in commodity prices reflected in some food items (cereals, sugar, animal and vegetable fats) and in base metals, machinery and mechanical appliances, as well as in mineral products. By contrast, most non-food items (footwear and accessories, hygiene products and transport equipment) lost momentum in 2020 Q4 and therefore, their unit value index remained below one.

Expectations for the beginning of 2021 include pressures from import prices and a possible return of the UVI to values above one, amid the broad-based upward trend in commodity prices. Conversely, the improved exchange rate position against the major currencies will have a positive bearing.

Chart 2.16. Industrial producer prices on the domestic market



Source: NIS, Eurostat

2.2. Producer prices on the domestic market

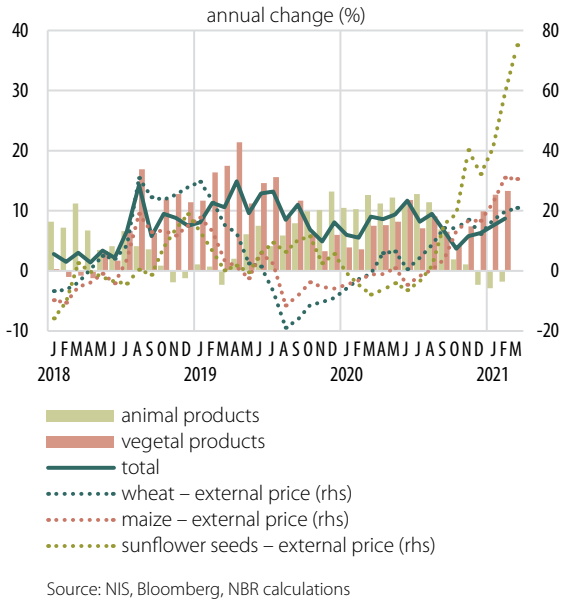
Early 2021 saw the annual dynamics of industrial producer prices on the domestic market enter positive territory, rising to 1.5 percent in January-February, up by 1.8 percentage points versus 2020 Q4 (Chart 2.16). The main driver of this development was the broad-based increase in commodity prices, which put extra pressure on firms' production costs, in addition to that exerted by unit labour costs or by the specific expenses arising from the measures to combat the pandemic. At the same time, the stronger-than-expected recovery of economic activity at end-2020, despite the second pandemic wave, is likely to have facilitated the pass-through to prices.

The breakdown shows that the negative annual dynamics of energy prices slowed down markedly (to -0.7 percent January through February 2021, from -6.4 percent

23 Expressed in EUR.

in 2020 Q4), mirroring the brisk pick-up in oil prices, as well as that in domestic electricity prices, on account of the further imbalance between demand and supply[24]. Looking at prices for intermediate goods, their annual growth rate rose to 2.6 percent, given the higher energy prices and the upward trend in international metal prices. Although the annual dynamics of producer prices for capital and consumer goods decelerated (to 1.6 percent and 3.1 percent respectively), this owed almost entirely to some base effects visible in certain industries (in the case of the former, the motor vehicle repair industry and in the case of the latter, the meat industry). Leaving aside these effects, the annual dynamics would have increased for both categories of goods, reflecting the deterioration in cost conditions.
As for consumer goods, mention should be made of developments in the food industry, where specific inflationary pressures have built up, associated with the very weak yields of the main crops (wheat, maize, sunflower seeds) in 2020.

Chart 2.17. Agricultural producer prices



Source: NIS, Bloomberg, NBR calculations

Specifically, in January-February 2021, the annual change of agricultural producer prices accelerated to 8.1 percent versus Q4 (up by 2.9 percentage points). Behind this stood the dynamics of prices for vegetal products, with a 5.9 percentage point increase to 13 percent, amid the poor crops in the past year (Chart 2.17).

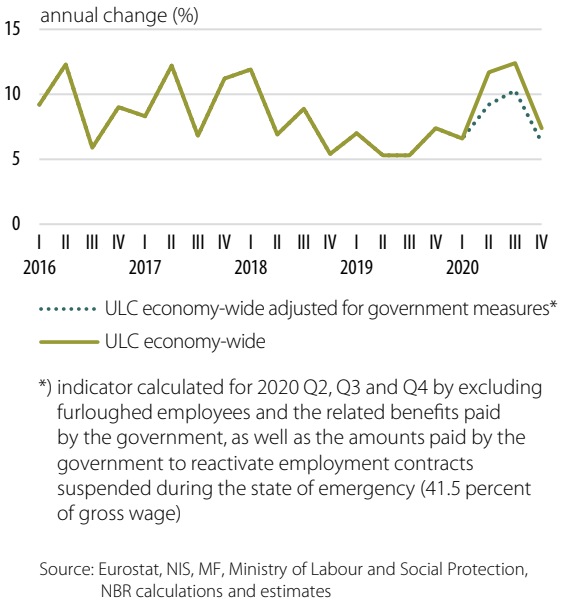
As regards animal products, their prices contracted in annual terms (-2.3 percent), slower dynamics being seen in meat prices, mainly on account of the large drops in pork product prices.

Unit labour costs

In the latter half of 2020, the annual growth rate of unit labour costs slowed down, the inflationary pressures via this channel, visible at the outbreak of the crisis, fading gradually as restrictions were lifted and the economic activity recovered. However, their dynamics remained robust (approximately 10 percent in 2020 H2 from roughly 12 percent in Q2), with values above the economy-wide average in the business sectors that require human interaction and were most hit by the health crisis (such as accommodation and food service activities, entertainment and recreation, transport, especially by air). Behind the persistently high pace of increase in unit labour costs stood also workforce retention, largely underpinned by labour market support measures. The indicator adjusted for the impact of firms' recourse to government support measures (furlough schemes, the reactivation of the employment contracts suspended during the state of emergency) recorded lower dynamics, of about 8 percent (Chart 2.18).

[24] Given the problems faced by the coal-fired electricity output, amid the high purchase costs of carbon dioxide emissions, and by hydroelectric power plants, due to the severe lack of precipitations in 2020.

Chart 2.18. Unit labour costs



*) indicator calculated for 2020 Q2, Q3 and Q4 by excluding furloughed employees and the related benefits paid by the government, as well as the amounts paid by the government to reactivate employment contracts suspended during the state of emergency (41.5 percent of gross wage)

Source: Eurostat, NIS, MF, Ministry of Labour and Social Protection, NBR calculations and estimates

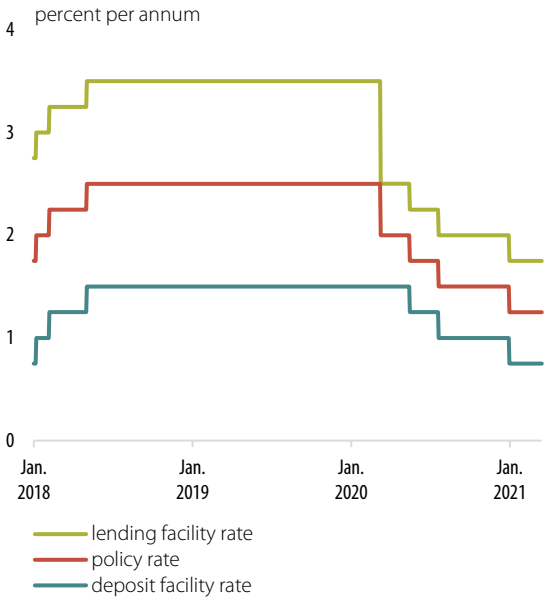
Looking at the industrial sector, the annual growth rate of unit wage costs neared 3 percent in the period from August 2020 to February 2021, but the analysis by sub-sector shows further mixed developments. Specifically, some areas, such as metallurgy and construction-related sub-sectors (driven by the positive developments in this sector) continued to record productivity gains. By contrast, the automotive industry and the related sub-sectors reported worsening dynamics of unit wage costs in the first months of 2021 (to above 5 percent, from negative or zero values in 2020 Q4). This owed to a major car manufacturer temporarily halting its operations to implement some changes in production lines, which were required for the manufacturing of new models. In the short run, these segments are expected to experience disruptions in production, given the gaps in supply chains generated by the microchip crisis. As for the sub-sectors with relevant shares in the CPI basket, the annual growth rates of ULC remained high in early 2021, going above 15 percent in the light industry and the pharmaceutical sub-sector, while posting somewhat more moderate values (about 6 percent) in the food and furniture industries.

3. Monetary policy and financial developments

1. Monetary policy

In the Board meeting of 15 March 2021[25], the NBR kept the monetary policy rate at 1.25 percent and left unchanged the deposit facility rate at 0.75 percent and the lending facility rate at 1.75 percent. Moreover, minimum reserve requirement ratios on both leu- and foreign currency-denominated liabilities of credit institutions were maintained at 8 percent and 5 percent respectively. The decisions aimed to preserve price stability over the medium term in line with the 2.5 percent ±1 percentage point flat inflation target, in a manner supportive of the recovery of economic activity in the context of fiscal consolidation, while safeguarding financial stability.

Chart 3.1. NBR rates



The NBR Board decisions were taken in an environment in which the annual inflation rate had risen way above expectations at the onset of the year and the pace of economic recovery in 2020 Q4 had exceeded by far the forecast. As a result, the updated path of the forecasted annual inflation rate was revised significantly upwards in the short term and to a smaller extent over the latter part of the projection horizon, amid very elevated uncertainties and risks, however, generated by the evolution of the pandemic and by the associated restrictive measures (Chart 3.1).

Specifically, the annual inflation rate picked up to 2.99 percent in January and to 3.16 percent in February[26], driven by the transitory impact of the liberalisation of the electricity market for household consumers and by the rise in fuel prices, amid higher oil prices[27]. At the same time, the annual adjusted CORE2 inflation rate decreased at a slower pace, going down to 3.1 percent in January 2021, from 3.3 percent in December 2020, and remaining

25 According to the NBR Board decision of 20 March 2020, given the uncertainty surrounding economic and financial developments in the coronavirus pandemic context, the previously announced calendar of monetary policy meetings was suspended, with monetary policy meetings to be held whenever necessary. In its meeting of 15 March 2021, the NBR Board approved the new calendar of monetary policy meetings.

26 From 2.06 percent in December 2020.

27 The impact of these factors was counterbalanced only to a small extent by the disinflationary influences from the VFE and tobacco product segments, as well as from core inflation deceleration.

flat in February. Its downtrend was further underpinned by the disinflationary base effects associated with the developments in some processed food prices, as well as by the modest impact of the aggregate demand deficit, alongside that of the weak demand on the services segment. Concurrently, small opposite influences stemmed from the rebound in purchases of some goods, but also from supply-side disruptions and costs linked with the pandemic and with the measures to prevent the coronavirus spread. Moreover, the dynamics of the component were still marked by the pre-pandemic underlying inflationary pressures, reflecting *inter alia* the associated inflation expectations.

At the same time, economic activity further saw a particularly fast recovery in 2020 Q4, the pace exceeding by far the forecast, with the annual GDP decline slowing to -1.4 percent from -5.6 percent in the previous quarter, given the 4.8 percent quarterly growth after the 5.6 percent pick-up in Q3. Consequently, the economic decline stood at only -3.9 percent in 2020 as a whole, while the aggregate demand deficit narrowed at end-2020 to a much larger extent than anticipated. Developments were associated with a renewed increase in the trade deficit versus the same period of the previous year – amid a somewhat more visible step-up in the dynamics of imports than in those of exports of goods and services –, as well as with the larger advance of the current account deficit in annual terms, also following a more pronounced worsening of the primary income balance[28], in spite of rising inflows of EU funds to the current account.

On the labour market, the impact of the resurgence of the pandemic and of the mobility restrictions implemented in 2020 Q4 was also below expectations[29]. However, the outlook for the labour market remained marked by elevated uncertainties, especially in the longer run, amid the third pandemic wave and the associated restrictions, as well as the temporary government support measures.

Against this backdrop, the inflation outlook changed visibly against the previous forecasts. Specifically, according to the new assessments, the annual inflation rate was expected to pick up gradually during 2021, until nearing the upper bound of the variation band of the target. Further on, after a sizeable downward correction at the beginning of next year, it was anticipated to climb again and remain slightly above the mid-point of the target, amid the renewed reversal in the cyclical position of the economy in 2021 Q3 – significantly earlier than in the prior projection – and the slow subsequent rise in excess aggregate demand[30].

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28 Owing to dividend distribution flows.

29 The number of employees in the economy continued to pick up mildly November through December 2020, the same as its annual dynamics, which nevertheless remained negative, while the ILO unemployment rate reported further a slow decline compared to the previous quarter's average. The job vacancy rate reversed, however, the marginal advance recorded in Q3, with labour market looseness thus remaining relatively unchanged, yet in the context of heterogeneous developments across the sectors. Under the circumstances, the average gross nominal wage earnings consolidated their relatively strong annual dynamics over the last months of 2020, mainly on account of private sector developments.

30 Thus, the annual inflation rate was seen standing at 3.4 percent at end-2021 (versus 2.5 percent in the previous projection, published in the November 2020 *Inflation Report*) and 2.8 percent at the end of the forecast horizon (against 2.4 percent envisaged earlier for the same moment of reference).

The higher and mildly rising values of the annual inflation rate in the current year, but also their downward adjustment at the onset of 2022 owed entirely to the action of supply-side factors, especially to the transitory impact of costlier electricity – amid the liberalisation of the relevant market – and its disinflationary base effect afterwards. Significant influences, in both ways across different time horizons, also stemmed from the likely developments in fuel prices, as well as from the rise in international agri-food commodity prices, affecting core inflation in particular.

Underlying pressures were, however, expected to gradually shift from being slightly disinflationary at present to mildly inflationary in the latter part of the projection horizon. The major premises and assumptions for this evolution were: (i) the lagged pass-through of the disinflationary effects from the negative output gap, as well as of the inflationary ones from the aggregate demand surplus, anticipated to reopen in 2021 Q3 and to widen slowly afterwards[31], (ii) the relative improvement in the composition of aggregate demand in terms of its inflationary potential, through a higher contribution of investment to the detriment of private consumption, with implications also for the future evolution of potential GDP, as well as (iii) the likely steep deceleration in the growth rate of unit labour costs over the projection horizon, amid the persistence of labour underutilisation and hence of loose labour market conditions[32]. Under the joint impact of the influencing factors, the annual adjusted CORE2 inflation rate was expected to continue its slight decline for several months, before seeing it come to a halt and remaining thereafter in the vicinity of 2.7 percent, visibly above the previously-anticipated values[33].

The uncertainties and the risks surrounding the new outlook continued to be very elevated, stemming mainly from the evolution of the pandemic and the associated restrictive measures – amid the third pandemic wave gaining momentum –, as well as from the vaccination dynamics worldwide, but especially across the EU. Major sources of uncertainties and risks consisted in the future fiscal policy stance, in the context of the budget consolidation presumed to be carried out gradually over the medium term, alongside the absorption of European funds allocated to Romania, as well as in labour market developments, under the influence of the public health situation and government support measures. Also relevant, however, were the synchronised uptrends in many global commodity prices, as well as international financial market developments, amid investors' rising inflation expectations and the outlook for the Fed's monetary policy stance.

31 According to the new assessments, the economy was anticipated to advance at a swifter pace in 2021 than envisaged earlier, due to its recovery way above expectations in 2020 Q4, before returning to more moderate dynamics in 2022, amid quarterly growth rates picking up as of the latter part of the current year – against the background of vaccination progress and the easing of restrictive measures –, albeit remaining below their pre-pandemic levels.

32 Import price dynamics emerged over the short term as a source of inflationary influences, contrary to previous forecasts. Mild transitory inflationary effects would likely stem also from the abrupt rise in demand for services after the removal of current restrictions, possibly amid supply-side constraints, as well as from persistent disruptions in production and supply chains.

33 Namely 2.4 percent in December 2021 and 2.3 percent at the end of the forecast horizon.

2. Financial markets and monetary developments

The daily average interest rate on interbank transactions[34] and longer-term rates on the interbank money market posted significant declines during the quarter overall, yet amid fluctuating developments. The EUR/RON exchange rate remained relatively stable in the first two months of 2021 Q1, before witnessing an upward adjustment in March. The annual growth rate of credit to the private sector and that of liquidity across the economy picked up further January through February overall.

2.1. Interest rates

The daily average interbank money market rate declined at a faster rate in January, *inter alia* amid the 0.25 percentage point cut in the monetary policy rate[35], going down into the lower half of the interest rate corridor and staying there until end-February, before climbing and tending to remain in the vicinity of the lending facility rate. Under the circumstances, its quarterly average saw a steeper decline against the previous three months (-0.41 percentage points), reaching a three-year low of 1.27 percent.

Alongside the cut in the NBR's reference rates, the evolution reflected the rise in excess liquidity on the money market in January[36], followed however by a significant narrowing in February and the temporary re-emergence of a net liquidity shortfall in March, amid the heightening of global financial market volatility[37], but also much better-than-expected domestic macroeconomic developments. Moreover, until towards the middle of the period, the NBR continued to mop up the reserve surplus solely via the deposit facility[38], before resorting to 1W deposit-taking operations[39]. Then, the central bank prudently provided liquidity to banks by conducting repo transactions and, to a lower extent, by purchasing leu-denominated government securities on the secondary market[40], associated with banks' keener recourse to the lending facility.

Against this backdrop, ON rates on the interbank money market declined abruptly in January, *inter alia* in response to the policy rate cut, falling and then remaining in the lower half of the interest rate corridor; nevertheless, at end-February they climbed sharply and neared the lending facility rate, tending to stay there until towards the end of the quarter.

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

35 Interest rates on standing facilities were lowered accordingly.

36 Under the impact of Treasury operations.

37 Against the background of investors' rising inflation expectations and concerns about the outlook for the Fed's monetary policy stance.

38 In the context of an improvement in investor sentiment on the Romanian economy outlook following the political events in December 2020, as well as of the increased global risk appetite.

39 The NBR held an auction on 17 February 2021 at which it took 1W deposits worth lei 4.5 billion.

40 Their volume stood at lei 0.1 billion in March.

Chart 3.2. Policy rate and ROBOR rates

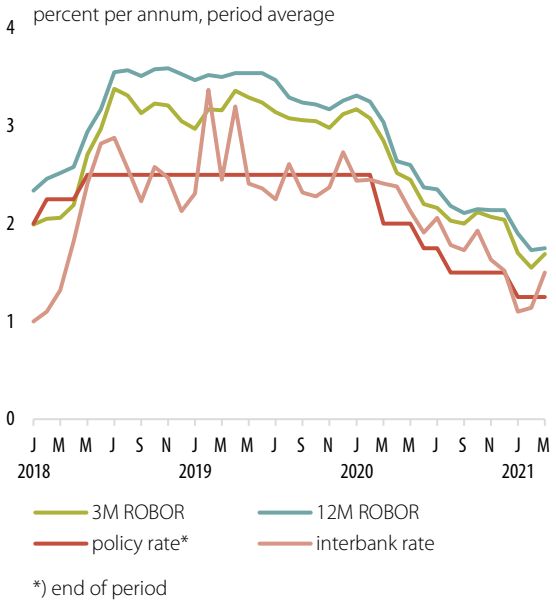
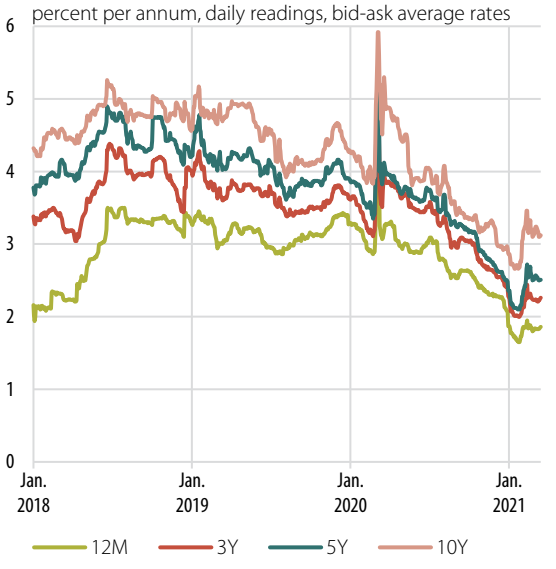


Chart 3.3. Reference rates on the secondary market for government securities



At the same time, longer-term 3M-12M ROBOR rates embarked on a steeply downward path at the beginning of the year, before posting a significant increase in the first 10-day period of March, which started however to see a correction towards the end of the period, amid expectations of an easing of market liquidity conditions[41]. Thus, the quarterly averages of these rates went down markedly, reaching 1.65 percent (down 0.43 percentage points) for the three-month maturity, 1.73 percent (down 0.39 percentage points) and 1.79 percent (down 0.35 percentage points) for the 6M and 12M rates respectively – the lowest readings in 14 quarters (Chart 3.2).

In turn, the government securities market reflected in Q1 the effects of the central bank's decisions and actions, as well as the major influences from: (i) the improvement in investor sentiment on the Romanian economy outlook following the December 2020 elections, (ii) the weakening of the global risk appetite in the latter part of February, owing to the revision of investors' inflation expectations[42] and to their concerns over the Fed's monetary policy stance, conducive to a broad-based sell-off and an increase in yields on government bond markets worldwide; (iii) the pick-up way above expectations of the annual inflation rate in January 2021 and especially of economic growth in 2020 Q4, as revealed by new statistical data.

Against this backdrop, reference rates on the secondary market for government securities[43] saw their downward path steepen and then extend into the first part of February – hitting, in terms of daily readings, the lowest values for the past approximately five years across the median segment of the maturity spectrum and an all-time low in the case of the 10-year maturity. Subsequently, they witnessed a relatively abrupt upward adjustment, which was however partially reversed in the first part of March (Chart 3.3). Hence, the March averages of secondary market rates primarily stood markedly

41 Also as a result of a government bond series worth lei 9.1 billion maturing on 22 March.

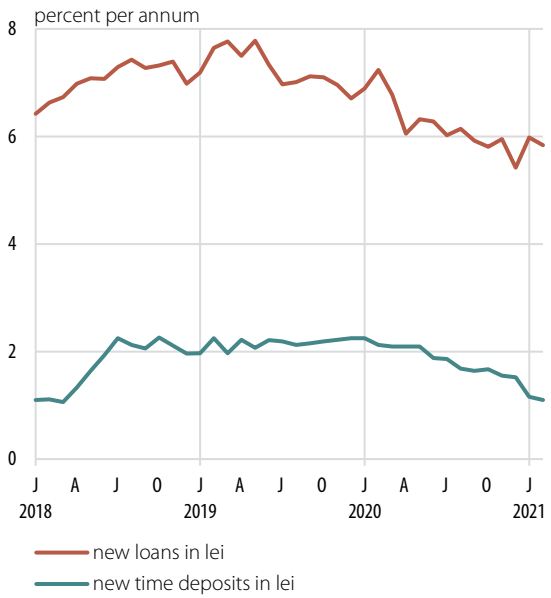
42 Amid the sizeable fiscal stimulus planned by the Biden Administration, the ongoing vaccination campaigns, but also the rise in commodity prices.

43 Bid-ask averages.

below the December 2020 readings, by up to 0.46 percentage points for 6-month and 12-month securities (1.78 percent and 1.84 percent respectively) and by around 0.34 percentage points (to 2.25 percent) and 0.13 percentage points (2.55 percent) for the 3- and 5-year maturities respectively. At the same time, the average rate for 10-year securities edged up 0.05 percentage points, to 3.19 percent. Consequently, the positive slope of the yield curve steepened versus end-2020.

On the primary market as well, the average accepted rates followed a sharply downward path in the first part of the quarter, which was then partly reversed. Compared to December 2020, the average accepted rates at the last auctions in the period under review went down across the entire maturity spectrum – by 0.5 percentage points for 1-year securities (1.86 percent), 0.23 percentage points (2.40 percent) for 4-year securities, and 0.04 percentage points (2.84 percent) for securities with a residual maturity of 7 years. The ratio of the amounts of bids submitted to the announced volume climbed markedly in January, to 2.4 from 2.0 in Q4, before declining in February and especially in March (to 2.3 and 1.7 respectively), amid the weakening of investor appetite for this type of assets[44]. During Q1 overall, the volume of securities issued and, to a smaller extent, that of net issues dwindled against the previous quarter, although the ratio of the volume of issues to the announced volume remained relatively unchanged (1.2[45] versus 1.3 in 2020 Q4), amid a slight reduction in the MF's supply.

Chart 3.4. Bank rates



The average lending rate on new business to non-bank clients witnessed an upward adjustment January through February 2021 (up 0.19 percentage points against the 2020 Q4 average, to 5.91 percent), yet solely on account of changes in the composition of the credit flow, as interest rates on the main types of loans stuck to a downward path, amid the decline in the monetary policy rate, in the relevant ROBOR rates and in the IRCC. Specifically, the average interest rate on new housing loans and that on consumer loans went down in tandem versus their respective 2020 Q4 averages

44 At the last auction for government securities held in February (with a residual maturity of around 7 years), as well as during two auctions in March (with maturities spanning 5 and 10 years respectively), the MF fully rejected the bids submitted.

45 During Q1, the MF also put into circulation, on a monthly basis, government securities for households, totalling lei 3 billion. As part of the "Tezaur" programme, the MF issued in January securities worth lei 955.2 million (spanning 1, 3, and 5 years, at rates of 3.25 percent, 3.5 percent and 3.75 percent respectively), in February in amount of lei 219.8 million (with maturities of 1, 3 and 5 years and rates of 3.0 percent, 3.30 percent and 3.45 percent respectively), and in March worth lei 488.2 million (with 1-, 3-, and 5-year maturities and rates of 2.85 percent, 3.10 percent and 3.25 percent respectively). Through the "Fidelis" programme, the MF put into circulation in March leu-denominated securities worth lei 709.4 million (with 1- and 3-year maturities, at 2.85 percent and 3.1 percent rates) and euro-denominated securities in amount of EUR 140.5 million (spanning 5 years, at a 1.55 percent rate). Moreover, in both February and March, the MF issued on the domestic market euro-denominated securities as well, totalling EUR 1.5 billion (of which EUR 1.3 billion in February – EUR 310 million over 5 years, residual maturity of 2.8 years, at a 0.09 percent rate and EUR 936 million over 6 years, at a 0.65 percent rate – and EUR 230 million in March, also over 6 years, at a 0.66 percent rate).

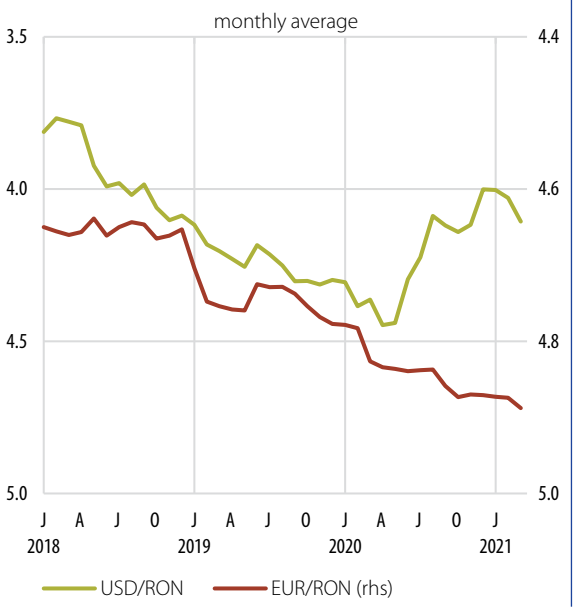
(-0.26 percentage points, to 4.61 percent, and -0.23 percentage points, to 8.97 percent, i.e. the lowest readings in approximately 6 years and 3 years respectively[46]); however, the average for the sector added 0.34 percentage points, to 7.01 percent, as a result of the wider share of consumer credit. In turn, the average lending rate on new business to non-financial corporations shed 0.27 percentage points against 2020 Q4 (to an average of 4.32 percent, a 14-quarter low), mainly on the back of the 0.39 percentage point reduction in the average interest rate on high-value loans (above EUR 1 million equivalent), which came in at 4.01 percent (Chart 3.4).

The average remuneration of new time deposits from non-bank clients followed a steeper downward path in the period from January to February overall, shedding 0.44 percentage points versus the 2020 Q4 average, to 1.13 percent, on account of developments across both types of customers. In particular, the average interest rate on new time deposits from households stood 0.20 percentage points lower than in the previous quarter, averaging out at 1.34 percent, while a more visible decline was recorded in the case of non-financial corporations (down 0.52 percentage points against 2020 Q4, to an average of 1.07 percent).

2.2. Exchange rate and capital flows

The EUR/RON exchange rate remained relatively stable in the first two months of Q1, before posting two upward adjustments in March, thus ending the period under review at visibly higher readings (Chart 3.5).

Chart 3.5. Nominal exchange rate



The EUR/RON exchange rate continued to fluctuate within a narrow range in the first half of 2021 Q1, amid investors' improved perception on the domestic economy and the moderate fluctuations in the global risk appetite; the latter reflected expectations on the adoption of the new fiscal stimulus package in the US, but also concerns about the epidemiological situation worldwide, fuelled by the emergence of new virus variants and the uncertainties surrounding the pace of vaccination, especially across Europe.

The global risk appetite deteriorated, however, considerably in the latter half of February, following the upward revision of investors' inflation expectations[47] and their concerns about the outlook for the Fed's monetary policy stance, which entailed a broad-based increase in government bond yields, as well as depreciation pressures, on emerging

46 In terms of quarterly data.

47 Amid the large fiscal stimulus announced in the US, the ongoing vaccination campaigns, but also the sustained increase in commodity prices.

markets in particular. Investors' sentiment towards financial markets in the region was additionally affected by concerns about the third pandemic wave, generated by the steep increase in newly reported coronavirus cases.

In the context of the interest rate differential and the tightening of money market liquidity conditions, the EUR/RON exchange rate preserved, however, its relative stability until end-February and witnessed only a small upward adjustment in the first 10-day period of March; at the same time, the exchange rates of the major currencies in the region rose swiftly, thus reversing the primarily downward path seen since the beginning of the year. In the closing days of the quarter, the EUR/RON recorded, nevertheless, a sturdier increase and then stuck to the new readings, in line with the trend of some domestic economic fundamentals[48].

On the interbank forex market, the volume of transactions rose visibly, nearing that recorded in the first three months of 2020, while their negative balance remained elevated, despite the considerably improved developments in March, especially in terms of residents' operations (Table 3.1).

Compared to the previous quarter[49], the domestic currency depreciated against the euro by 0.3 percent in nominal terms[50] and appreciated 1.8 percent in real terms. In relation to the US dollar, the leu weakened by 2.6 percent in nominal terms and 0.5 percent in real terms, given the former's strengthening against the euro. Looking at the average annual exchange rate dynamics in 2021 Q1, the leu saw its depreciation versus the euro diminish and its appreciation against the US dollar step up significantly (Chart 3.6).

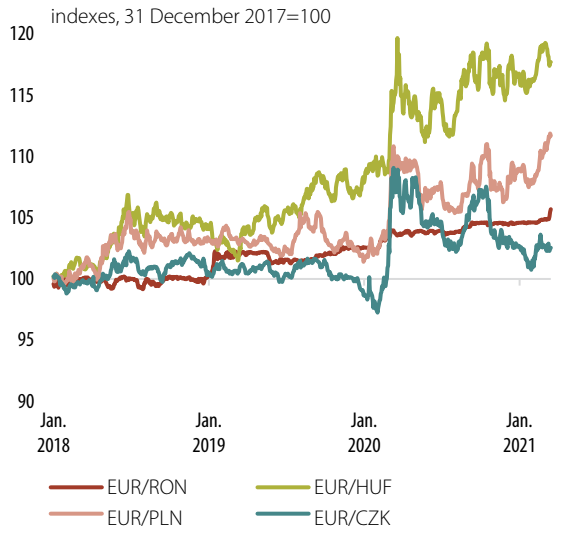
Table 3.1. Key financial account items

EUR million

	2 mos. 2020			2 mos. 2021		
	Net acquisition of financial assets*	Net incurrence of liabilities*	Net	Net acquisition of financial assets*	Net incurrence of liabilities*	Net
Financial account	3,584	4,936	-1,352	-1,304	-102	-1,202
Direct investment	-163	512	-674	30	607	-578
Portfolio investments	-66	4,842	-4,908	162	17	145
Financial derivatives	-17	x	-17	-3	x	-3
Other investment	927	-418	1,345	850	-727	1,576
– currency and deposits	893	-316	1,208	740	-584	1,324
– loans	20	21	-1	-7	-220	214
– other	14	-123	138	117	77	38
NBR's reserve assets, net	2,902	0	2,902	-2,343	0	-2,343

*) "+" increase/"-" decrease

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



Source: ECB, NBR

48 Such as the evolution of inflation and of the trade deficit and current account deficit in the first months of the year.

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

50 During this period, the forint and the zloty weakened more visibly versus the euro (1.8 percent and 2.6 percent respectively), whereas the Czech koruna strengthened slightly (0.5 percent) vis-à-vis the single currency.

2.3. Money and credit

Money

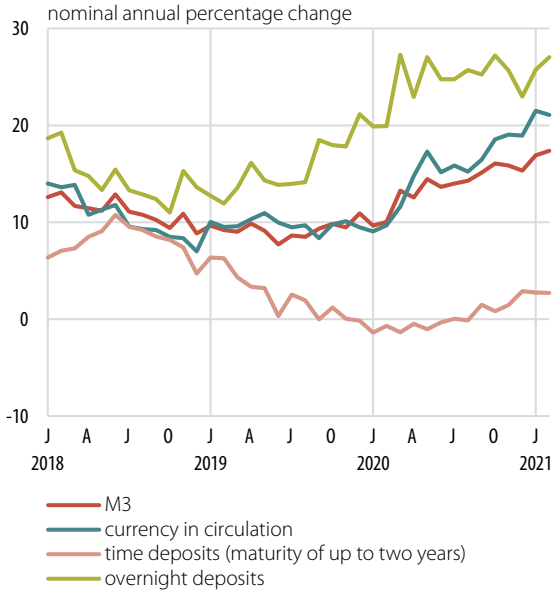
The particularly swift annual dynamics[51] of broad money (M3) continued to pick up January through February 2021, reaching 17.1 percent – an approximately 12-year high[52] – from 15.8 percent in the previous three months[53]. Monetary expansion further reflected the characteristics of budget execution – *inter alia* marked by the pandemic relief measures –, as well as the stronger increase in credit to the private sector (Table 3.2).

Table 3.2. Annual growth rates of M3 and its components

nominal percentage change

	2020				2021	
	I	II	III	IV	Jan.	Feb.
	quarterly average growth					
M3	11.0	13.6	14.5	15.8	16.9	17.4
M1	18.7	22.2	22.5	23.5	24.6	25.4
Currency in circulation	10.1	15.7	15.8	18.8	21.5	21.1
Overnight deposits	22.4	24.9	25.2	25.3	25.7	27.0
Time deposits (maturity of up to two years)	-1.1	-0.6	0.5	1.7	2.7	2.7

Chart 3.7. Main broad money components



In line with the pattern of the last three quarters of 2020, both major components underpinned the upward path of M3 in the reviewed period. Specifically, the dynamics of narrow money (M1) followed a more pronounced upward trend, reaching a 4½-year record high, mainly on account of the faster growth rate of currency in circulation (up to a 12-year peak) and leu-denominated overnight deposits from non-financial corporations, but also due to the contribution of the slightly brisker pace of increase of similar household deposits, from the already very high level reached in the last months of 2020. At the same time, the change in deposits with an agreed maturity of up to two years advanced more visibly into positive territory, amid the sharp step-up in the dynamics of leu-denominated corporate deposits and the quasi-stable pace of similar household deposits. Against this background, the share of M1 in M3 contracted marginally from the post-April 1994 high recorded in December 2020, standing at 69.1 percent in February 2021 (Chart 3.7).

From a sectoral perspective, the pick-up in M3 annual dynamics was due to the considerable re-acceleration in the growth of corporate deposits[54], to the highest reading for more than 12 years, in the context of economic recovery and the sharper increase in loans to this sector, as well as on the back of the loose budget execution and the short-term extension of government

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

52 Such assessments are based on quarterly data.

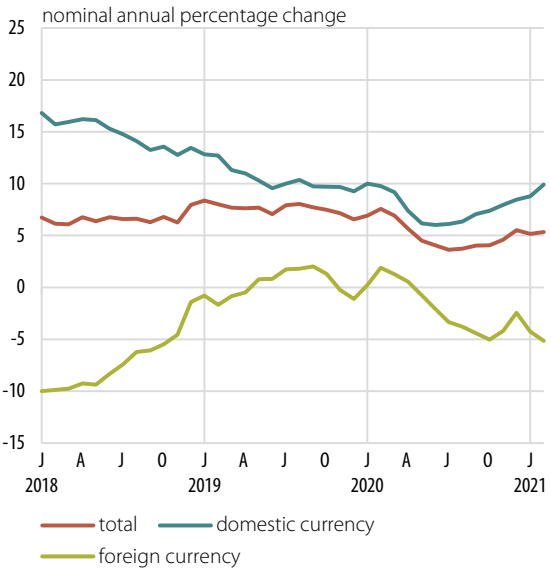
53 In real terms as well, the average annual M3 dynamics continued to follow an upward path, albeit less steep, reaching 13.6 percent in the first two months of 2021, from 13.3 percent in 2020 Q4.

54 The investments of non-monetary financial institutions (non-MFIs) recorded slightly less negative dynamics during the first two months of 2021 overall, whereas their share in total private sector deposits remained subdued (4.4 percent).

measures aimed at mitigating the economic impact of the pandemic crisis, *inter alia* by supporting firms' liquidity[55]. The growth rate of household deposits remained particularly brisk in its turn in January-February 2021, declining only marginally compared to 2020 Q4[56], amid the sustained rise in disposable income, but also in the context of mixed developments in consumer demand[57] and of the faster annual rate of change of this sector's holdings of government securities[58].

From the perspective of M3 counterparts, the stronger momentum of monetary expansion was primarily driven by the swifter pace of increase of central government net credit, mirroring the renewed pick-up in the growth rate of credit institutions' holdings of government securities (to an 8½-year high), concurrently with the deceleration in the dynamics of central government deposits. The step-up in the rate of change of credit to the private sector had a similar, albeit less strong, influence[59].

Chart 3.8. Credit to the private sector by currency



Credit to the private sector

The annual growth rate of credit to the private sector picked up further in the first two months of 2021 Q1 as a whole, reaching 5.2 percent from 4.7 percent in the previous quarter[60]. Its advance was driven, in this period as well, by the swifter pace of increase of the leu component, which, consequently, came close to two-digit levels (9.3 percent, from 7.9 percent in 2020 Q4), amid the recovery of economic activity and falling interest rates, as well as a result of government programmes (primarily "IMM Invest Romania"[61] and "New Home"). Nevertheless, the annual decline of foreign currency-denominated credit (expressed in EUR) grew notably deeper, reaching a 2½-year high. Therefore, the share of domestic currency loans in private sector credit climbed to 69.9 percent in February, hitting a post-January 1996 record high (Chart 3.8).

55 These measures include the possibility to delay the payment of some fiscal obligations, financial aid to companies in order to support the labour market (*inter alia* via temporary and partial subsidies for wages in firms affected by the pandemic), as well as the possibility given to firms to suspend temporarily the payment of some bank loan instalments.

56 An 11-year peak.

57 As shown by the more obvious slowdown, January through February, in the annual dynamics of retail trade turnover (excluding motor vehicles and motorcycles), accompanied, however, by their return to positive territory in the motor vehicles and motorcycles segment and by a slower pace of decline in market services to households.

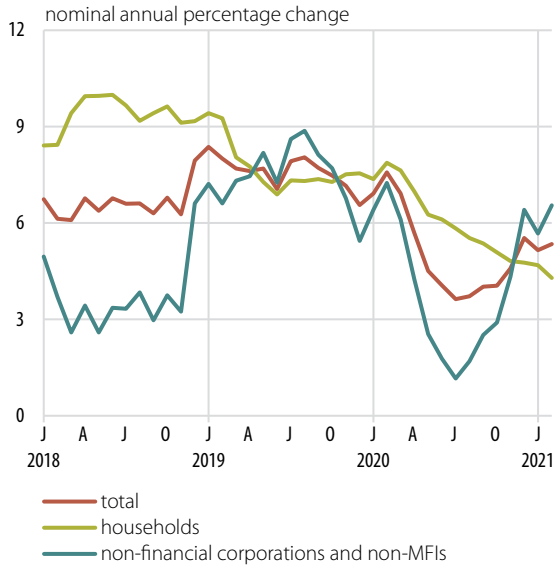
58 In January-February 2021, under the "Tezaur" programme, the MF issued securities denominated in domestic currency totalling lei 1.2 billion.

59 As did the further slowdown in the advance of long-term financial liabilities (capital accounts included).

60 In real terms, the average annual rate of increase of credit to the private sector slowed slightly, to 2.1 percent in the period from January to February versus 2.5 percent in the previous three months.

61 "IMM Invest Romania" is 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. For 2021, the total guarantee ceiling amounts to lei 15 billion, of which lei 1 billion is allocated for the "AGRO IMM INVEST" sub-programme.

Chart 3.9. Credit to the private sector by institutional sector



Looking at institutional sectors, the stronger increase in credit to the private sector was driven further by leu-denominated loans to non-financial corporations, which posted a faster growth rate, up to two-digit levels, amid the rise to a 13-year high of the dynamics of medium- and long-term loans, on the back of the "IMM Invest Romania" programme and the downtrend in interest rates. By contrast, foreign currency-denominated loans to non-financial corporations (expressed in EUR) saw a steeper annual contraction (Chart 3.9).

However, the annual dynamics of loans to households remained on a mildly downward trend, given that the slower deceleration in the growth of the leu component was accompanied by the stronger decline of the foreign currency component (expressed in EUR). The evolution of domestic currency loans reflected the reversal of the downward trend followed by the dynamics of housing loans, which increased slightly during the period overall, for the first time in four quarters, amid the further decline in related interest rates and the still robust rise in wage income, but also due to the "New Home" programme. Conversely, the rate of change of consumer credit, other loans and business development loans further followed a downtrend, marginally entering negative territory, *inter alia* with a contribution from the increasingly more pronounced contraction in financing granted through lines of credit.

4. Inflation outlook

The baseline scenario of the macroeconomic projection remains, similarly to the previous rounds, conditional on the assumptions related to the future epidemiological developments. Specifically, the public health crisis is envisaged to start loosening its grip gradually in 2021 Q2 and at a faster pace during Q3, mostly on the back of the progress in the vaccination campaign expected to reach a satisfactory threshold this summer. The annual CPI inflation rate is projected to follow an upward path until the end of this year, when it is seen reaching 4.1 percent, a level above the upper bound of the variation band of the target. This evolution is driven mainly by the developments in consumer basket components beyond the scope of monetary policy, energy prices in particular. Once most of these unfavourable influences have faded away, as anticipated for the start of next year, the annual CPI inflation rate is expected to slow down markedly in 2022 Q1, before stabilising at 3.0 percent until the end of the projection interval, i.e. 2023 Q1. The annual core inflation rate is seen on the wane in 2021 Q2, then moving slightly upwards to 2.8 percent at end-2021, 3.0 percent at end-2022 and 3.1 percent at the projection horizon. The medium-term trend is set by the gradual increase in inflationary pressures from the output gap, inflation expectations, as well as from imported inflation. The balance of risks to the annual inflation projection is assessed to be tilted, especially over the near term, to the upside compared to its path in the baseline scenario, with the main sources of risks being associated with the domestic environment.

Baseline scenario

4.1. External assumptions

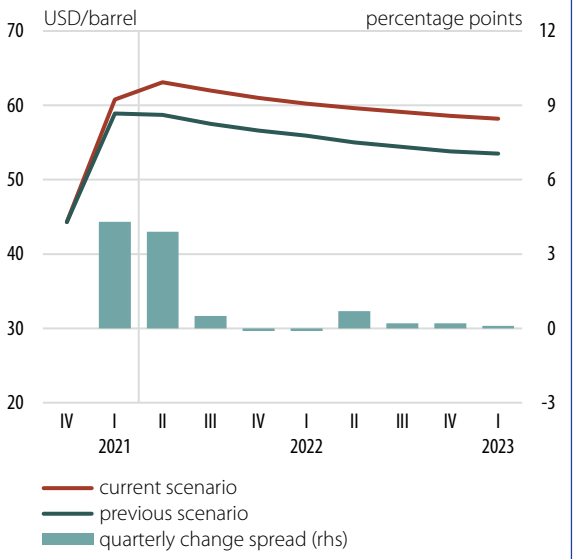
The epidemiological situation in Romania's main trading partners continued to be tense during the first quarter of this year as well. Against the background of social distancing measures, economic activity contracted somewhat at EU level, with the services sector remaining the hardest hit. Looking ahead, the improvement of the public health crisis will allow a gradual relaxation of mobility restrictions and, implicitly, a resumption of effective EU GDP growth, a proxy for the developments in external demand. The average annual dynamics of effective EU GDP will post robust values, higher than the potential growth rate, both in 2021 and 2022 (Table 4.1). Hence, the effective EU GDP gap will follow an upward trajectory over the entire projection interval. Compared to the previous *Inflation Report*, the average annual growth of external demand was revised upwards, substantially for 2022, amid expectations of a relatively swifter pick-up in economic activity in 2021 H2

Table 4.1. Expectations on the developments in external variables

	annual averages	
	2021	2022
Effective EU economic growth (%)	4.3	4.3
Annual inflation rate in the euro area (%)	1.5	1.2
Annual inflation rate in the euro area, excluding energy (%)	1.1	1.2
Annual CPI inflation rate in the USA (%)	2.8	2.8
3M EURIBOR (% per annum)	-0.5	-0.5
USD/EUR exchange rate	1.20	1.20
Brent oil price (USD/barrel)	61.7	59.4

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

Chart 4.1. Brent oil price scenario



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

(associated with epidemiological developments) and, implicitly, a more pronounced carry-over effect.

The annual HICP inflation rate in the euro area is projected to go up during 2021 and to near the 2 percent benchmark at the end of this year. However, the evolution will be marked by the significant bearing of temporary factors, particularly in the case of energy, given the base effects from the previous year and this year's stronger rise in crude oil prices. Subsequently, the moderating path of these prices will prompt the annual HICP rate to return in 2022 to levels significantly below the ECB's reference value. The slow uptrend, after the downward adjustment at the beginning of next year, will be driven by the annual HICP inflation rate excluding energy, under the impact of economic recovery, but this measure will remain relatively low throughout the forecast interval (Table 4.1).

In the absence of prospects of a robust convergence of inflation rate towards the reference value, the ECB's monetary policy is expected to be further accommodative over the projection period. Against this backdrop, the nominal 3M EURIBOR will post negative values.

Subsequently to the appreciation of the euro against the US dollar in the latter half of last year, the trend reversed at the beginning of this year. Looking ahead, the updated scenario envisages a relatively stable rate for the currency pair, yet surrounded by great uncertainty.

The scenario for the Brent oil price is based on futures prices and foresees a gradual decline, from USD 63 per barrel in 2021 Q2 to USD 58 per barrel at the projection horizon (Chart 4.1). The downward trajectory is related to the expectations on the balancing of the demand-and-supply ratio and the reduction of inventories. Future developments continue to hinge mainly on factors such as the pace of economic recovery and the OPEC+ agreements on production caps.

4.2. Inflation outlook

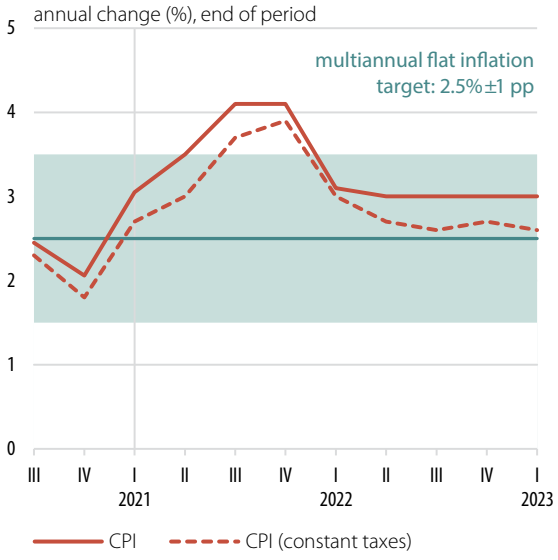
The annual CPI inflation rate rose markedly in the first quarter of this year, on the back of the energy component of the consumer basket, amid the liberalisation, as from 1 January 2021, of the electricity market for household consumers and the brisker growth of Brent oil prices. The indicator is forecasted to stay on an upward path until

the end of 2021, when it is seen reaching 4.1 percent, a level above the upper bound of the variation band of the target (Chart 4.2). Inflation is expected to be fuelled by the increases in natural gas prices foreseen for July 2021[62] and the dynamics of volatile food prices (VFE). Given the transitory nature of these supply-side shocks, the annual CPI inflation rate is projected to slow down early next year after incorporating some favourable base effects, before coming in at 3.0 percent at the end of both 2022 and the forecast interval (Table 4.2). The contribution of changes in indirect taxes[63] to the annual CPI inflation rate is estimated at 0.4 percentage points at end-2021 and 0.2 percentage points at end-2022. The average annual CPI inflation will, in turn, follow an uptrend in the first half of the projection interval, peaking at 3.6 percent in 2021 Q4 and 2022 Q1, before falling to 3.0 percent in 2023 Q1.

Compared to the March 2021 *Inflation Report*, the annual CPI inflation rate was revised upwards by 0.7 percentage points at end-2021, due largely to the dynamics of energy prices, and by 0.2 percentage points at end-2022, in view of a higher contribution of the adjusted CORE2 index (Table 4.3).

The annual core inflation rate is projected to fall in 2021 Q2 on the back of favourable base effects associated with the hike in processed food prices a year ago[64], as well as amid the easing of supply-side inflationary pressures related to the effects of the COVID-19 crisis (Table 4.3). Conversely, stronger inflationary pressures over the near run are anticipated to come from the recent climb in global agri-food commodity prices, which may send producer prices higher. Subsequently, the annual core inflation rate is seen rising slightly to 2.8 percent at end-2021, 3.0 percent at end-2022 and 3.1 percent at the projection horizon. This trend is driven by the gradual increase in inflationary pressures stemming from the output gap[65], also

Chart 4.2. Inflation forecast



Source: NIS, NBR projection

Table 4.2. The annual inflation rate in the baseline scenario

annual change (%); end of period

	2021			2022				2023
	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	3.5	4.1	4.1	3.1	3.0	3.0	3.0	3.0
CPI projection*	3.0	3.7	3.9	3.0	2.7	2.6	2.7	2.6

*) calculated at constant taxes

Table 4.3. Annual adjusted CORE2 inflation rate in the baseline scenario

annual change (%); end of period

	2021			2022				2023
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Adjusted CORE2	2.6	2.7	2.8	2.8	2.9	2.9	3.0	3.1

62 The recent hikes in natural gas prices have not yet fully fed through into final consumer prices, as these contracts are updated at longer intervals, usually on an annual basis.

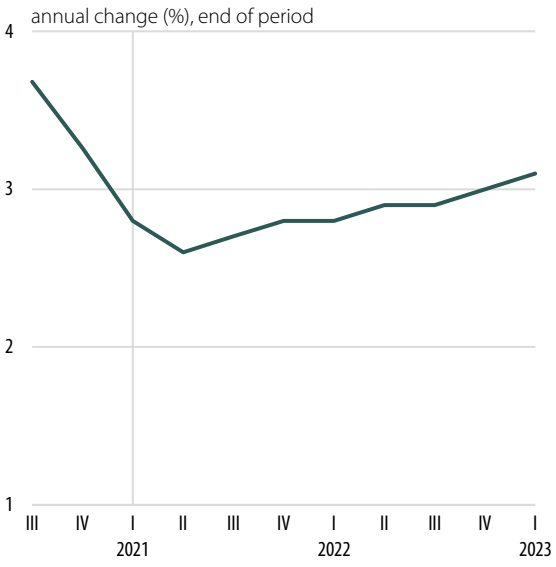
63 It refers to the updating of the excise duty on motor fuels and tobacco, which, pursuant to the law in force, is carried out on an annual basis, i.e. in January and April respectively.

64 Particularly amid the outbreak of the pandemic and the lockdown imposed during that period, which triggered an increase in precautionary demand, on the one hand, and steeper costs that pushed prices higher, on the other hand.

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

amid the further relatively robust advance in wages, yet at markedly lower levels than in the pre-crisis period. Adding to these are the pressures associated with inflation expectations, placed in the upper half of the variation band of the target over the medium term, those stemming from the external environment[66], with an impact on imported goods prices, and the lingering effects of steeper global agri-food commodity prices. These influences are projected to be partly offset by a further contraction in supply-side inflationary pressures related chiefly to the effects of the COVID-19 crisis (Chart 4.3).

Chart 4.3. Annual adjusted CORE2 inflation



Source: NIS, NBR projection

Table 4.4. Components' contribution to annual inflation rate*

	percentage points	
	2021	2022
Energy	1.6	0.3
VFE prices	0.2	0.3
Administered prices	0.2	0.2
Adjusted CORE2	1.8	1.9
Tobacco and alcoholic beverages	0.4	0.3

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

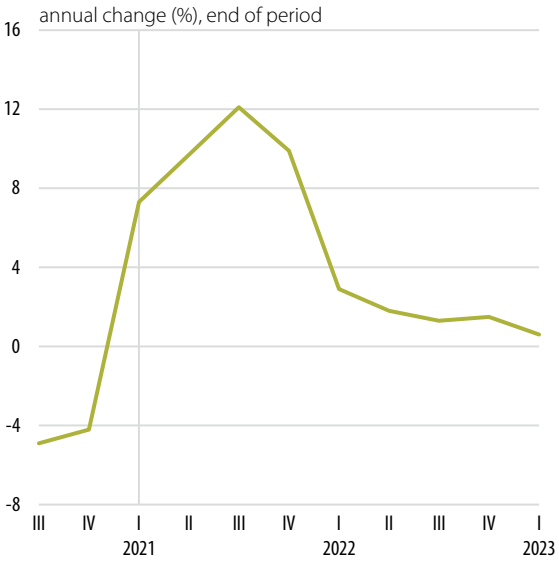
Compared to the March 2021 *Inflation Report*, the annual adjusted CORE2 inflation rate was revised upwards by 0.1 percentage points and 0.3 percentage points at the end of 2021 and 2022 respectively. The reassessment is attributed to the upward revision of the output gap and of inflation expectations, and to the lingering effects of the recent hikes in agri-food commodity prices over the forecast interval.

The forecasted cumulative contribution of inflation components beyond the scope of monetary policy, namely energy prices, volatile food prices, administered prices and tobacco product and alcoholic beverage prices, to the annual CPI inflation rate for the end of this year (2.4 percentage points, revised upwards by 0.6 percentage points) hit an eight-year high. The significant rise from virtually nil at end-2020 is ascribable to the energy component of the consumer basket. A deceleration is expected for the end of next year, down to 1.2 percentage points (0.1 percentage points above the level projected in the previous *Report*) (Table 4.4).

The energy component – prices of fuels, electricity and natural gas – is projected to increase at a faster pace over the next two quarters, after the already elevated value recorded at the end of 2021 Q1 (7.3 percent), especially amid the developments anticipated in natural gas and fuel prices. The value forecasted for the end of this year is 9.9 percent. Subsequently, starting in 2022, against the background of a substantial base effect, the annual dynamics are projected to follow a downward trend and reach 1.5 percent in December 2022 and 0.6 percent in 2023 Q1 (Chart 4.4).

66 Based on euro-area HICP inflation excluding energy.

Chart 4.4. Energy price inflation



Source: NIS, NBR projection

The annual growth rate of fuel prices is anticipated to gather momentum until 2021 Q3, amid the recent upswings in crude oil prices, before slowing down, once the calculation basis no longer includes the time span affected by these increases. The forecast envisages 7.5 percent at end-2021 and 1.8 percent at end-2022. The path was revised upwards compared to the previous *Inflation Report*, more substantially for 2021 (by 2.5 percentage points at the end of the current year and 0.4 percentage points at the end of next year). This reassessment owes to the updating of the Brent oil price trajectory, based on futures prices, to higher-than-previously-forecasted levels, but also to expectations of a stronger US dollar versus the euro, with an impact on the USD/RON exchange rate relevant for the evolution of the leu-denominated prices for this category of goods.

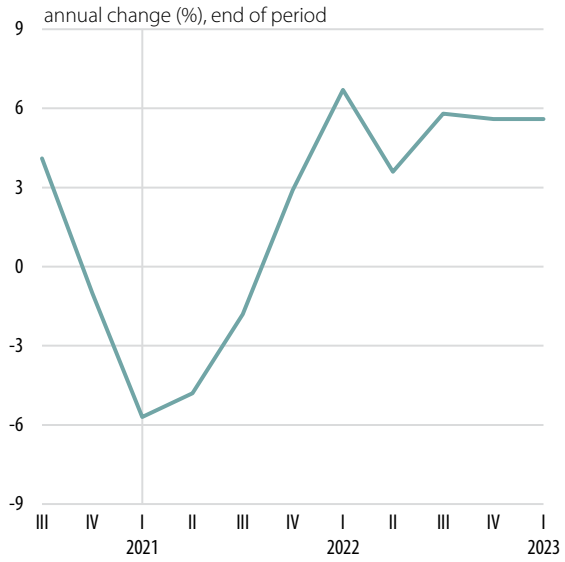
After a substantial hike (18.4 percent) in electricity prices in January, the projection forecasts a downward adjustment in July (about 5 percent), following the discounts to be offered by suppliers to make up for the difference between the universal service price and the best price on offer (based on Order No. 5/2021 issued by the Romanian Energy Regulatory Authority). However, the projected trajectory is further beset by elevated uncertainty, given that leading suppliers show a relatively high degree of rigidity with respect to free market offers, the adjustments made so far constituting upward corrections of more advantageous offers towards the market average. Compared to the previous forecast, only the end-2021 rate (13.4 percent) was revised slightly upwards, by 0.9 percentage points, amid the recent developments, whereas the value projected for end-2022 remained at 2.1 percent.

The path of natural gas prices – projected in the March 2021 *Inflation Report* to stay at the end-2020 level in 2021 as well – is marked in the current round by this July's significant hike of 10 percent, given the expected upward adjustments occasioned by the annual renewal of contracts between suppliers and final customers, amid the sturdy increases on the Romanian Commodities Exchange. Subsequently, in the absence of relevant information, no further material price changes are anticipated until the forecast horizon.

The annual dynamics of volatile food prices (VFE) are anticipated at 2.9 percent and 5.6 percent at the end of 2021 and 2022 respectively (Chart 4.5). Compared to the previous forecast, more unfavourable developments are foreseen over the short term, and hence the annual growth rate for December 2021 was revised upwards by 1.7 percentage points. For the end of next year, the revision was marginal (+0.1 percentage points). In both years of the projection, the path was built on the assumption of normal harvests[67].

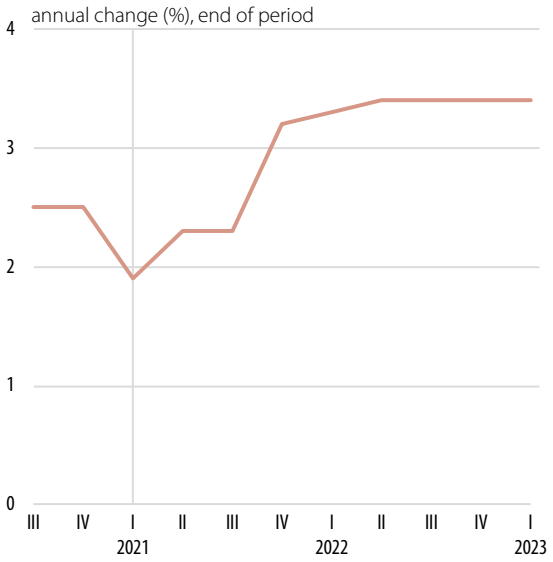
67 Relative to its multiannual averages.

Chart 4.5. VFE price inflation



Source: NIS, NBR projection

Chart 4.6. Administered price inflation



Source: NIS, NBR projection

Looking at the trajectory of administered prices[68], their growth rate is seen standing at 3.2 percent and 3.4 percent at the end of 2021 and 2022 respectively (Chart 4.6), based on past developments. The projected values are relatively similar to those anticipated in the prior round.

The annual growth rate of prices of tobacco products and alcoholic beverages is forecasted at 4.9 percent and 4.4 percent at end-2021 and at end-2022 respectively, these levels being relatively similar to those projected previously. This path is based on historical developments, but also on the increases in excise duties provided by legislation, considering also the behaviour of companies in this field as regards the final price adjustment.

4.3. Demand pressures in the current period and over the projection interval[69]

Output gap

The most recent GDP data – in the second preliminary version[70] – reconfirmed a strong economic recovery in 2020 Q4 (+4.8 percent – the highest value across the EU). By comparison to the first provisional version of data available at the date of drafting the previous *Inflation Report*, the breakdown shows a more substantial positive contribution coming from domestic demand, and a larger negative one from net exports. However, mention should be made about the still high contributions

68 Once electricity and natural gas prices have been excluded from the administered price group, about 75 percent of this group are accounted for by medicines and water, sewerage and waste disposal.

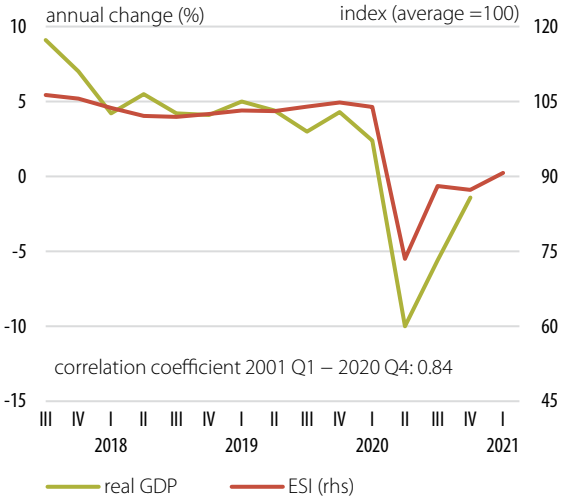
69 Unless otherwise indicated, quarterly percentage changes are calculated based on seasonally adjusted data series. Source: NBR, MF, NIS, Eurostat, EC-DG ECFIN and Reuters.

70 NIS Press Release No. 86 of 08 April 2021.

of statistical discrepancy and the change in inventories (to which an explicit economic substance is difficult to assign based on historical developments), which could transpose into significant future revisions of the historical data series for GDP components.

For 2021 Q1, similarly to the prior *Report,* economic activity is foreseen to remain close to the (high) level recorded at end-2020. Behind the slight GDP growth stood the resilience of the sectors not affected directly by social distancing measures and the adjustment of most economic agents to the current conditions. Despite the outbreak of the third pandemic wave, the available indicators seem to bring proof of a further robust domestic economy. Against this background, in 2021 Q1 the confidence of economic agents improved (Chart 4.7), and it continued to do so in the first month of Q2. The near-term forecasts are further supplemented by the monitoring of a large range of high-frequency indicators[71], correlated with the dynamics of economic activity.

Chart 4.7. Economic sentiment indicator* and economic growth



*) seasonally adjusted data

Source: NIS, EC-DG ECFIN

For 2021 Q2, moderately positive GDP dynamics are expected, relatively swifter than in Q1. A divergence between the economic activities directly affected by social distancing measures and the other sectors is further anticipated. At the same time, the forecast takes into account the recent relaxation of several social restrictions at local/regional level, amid the improvement of the health situation in April. Moreover, assuming that a critical vaccination threshold will be reached in the final part of the quarter[72], due to the progress of the campaign undertaken by the authorities, economic agents might benefit from further easing of mobility restrictions, including at national level. Against the background of the vaccination rollout and, consequently, of a foreseen improvement of the health crisis, the economies of Romania's trading partners are also expected to gain momentum. However, mention should be made about the many possibilities for the future evolution of the medical situation, amid the emergence of new strains of the virus and the still relatively slow pace of vaccination campaigns in most European countries.

In 2020 as a whole, the economy recorded a 3.9 percent fall. This value was attributable to the severe contraction in Q2, partly offset in the second half of the year by a succession of brisk quarterly increases. Mention should be made that these increases

71 For 2021 Q1, in March, favourable signals regarding economic activity came from indicators such as: electricity consumption, company and freelancer registrations, the stock of credit to the private sector, the value of rejected debit payment instruments or the Sentix Index. As for Q2, favourable signals mainly stem from the Volatility Index (VIX) and the Sentix Index, the road traffic in Bucharest and the 3M ROBOR.

72 It should also be noted that, at EU level, reaching the vaccination threshold of 70 percent of the adult population is expected to occur in the first month of Q3.

exert a significant carry-over effect[73] on this year's economic growth, which is projected to be strongly positive, even amid the much slower quarterly dynamics expected in the first two quarters compared to those registered in 2020 H2. For the latter part of the year, a step-up in economic activity is anticipated, conditional on the assumption of the gradual relaxation of social distancing measures. Additional favourable influences on this year's economic growth are also linked to the likely transition to a normal year in terms of weather conditions, which implies the fading away of the negative contribution of agriculture to GDP dynamics in 2020. The breakdown shows that the average annual GDP dynamics (projected to be high throughout the current year and the next) are driven by those of household consumption, to which adds the robust contribution from gross fixed capital formation (a component that was resilient even since the onset of the pandemic), whereas net exports make a negative contribution, yet abating significantly from the prior year. Compared to the outlook in the March 2021 *Inflation Report* , the economic activity forecast has been revised upwards, with additional positive effects expected to stem from the inclusion in the baseline scenario, for the very first time, of the assumption regarding the absorption of EU funds under the Next Generation EU programme[74] (likely to contribute in a substantial manner to Romania's economic recovery), as well as from the favourable medium-term reassessment of the effective external demand's upturn.

Along with the fading-out of the adverse pandemic effects, potential GDP dynamics are assessed to undergo a strong rebound in the course of the year, also on the back of a significant statistical carry-over effect, the component having a notable contribution to annual economic growth. In the following years, this recovery is expected to continue gradually, amid improved contributions from all production factors. The contribution of labour is foreseen to take an upturn, reflecting the favourable trends of the activity rate and of the average number of worked hours per employed person, together with a flattening trend of unemployment throughout the projection interval, against the background of a favourable macroeconomic environment. The robust capital stock accumulation captures the trajectory of investments supported also by the supposedly beneficial impact (relevant over several years) of the assumed use of EU structural and investment funds allocated via the multiannual financial frameworks and the Next Generation EU programme[75]. However, these funds are conditional on the drafting and implementation of viable projects. The TFP trend contribution[76] is supported by efficiency gains associated with changes in the business strategies of companies, by reorganising their activity,

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73 Assessed at 3.3 percentage points. For methodological references, see the Box entitled "The impact of the carry-over effects on average annual real GDP growth rate" in the August 2013 *Inflation Report*.

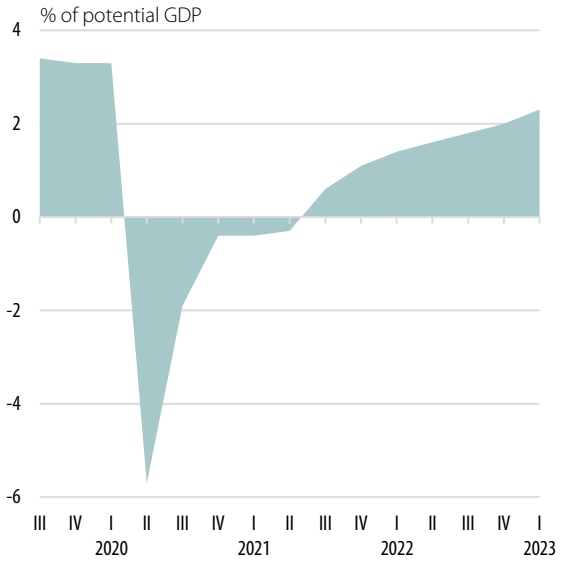
74 The gradual access to these funds is conditioned by the time of approval of the National Recovery and Resilience Plans by European officials.

75 Given that Romania's National Recovery and Resilience Plan is supposed to be officially submitted to the European Commission in order to be reviewed by the end of May 2021, the current baseline scenario was built on the conservative assumption of a moderate absorption of funds compared to the total allocations that Romania benefits from.

76 Over the longer term, the dynamics highlight persistent adverse effects of the economy associated with the regulatory framework or the quality of infrastructure (weighing also on labour mobility). Evidence is brought by the *Ease of Doing Business* ranking of the World Bank, the *Global Competitiveness Index Report* of the World Economic Forum or the *European Innovation Scoreboard* analysis of the European Commission (which ranks Romania among modest innovators, coming in last among EU countries).

accelerating digitalisation and automating the operational processes, therefore reflecting their efforts to adapt to the pandemic context[77]. Against this background, compared to the previous *Inflation Report*, the path of potential GDP was revised slightly upwards, alongside a revision of economic growth.

Chart 4.8. Output gap



Source: NBR assessments based on data provided by the NIS

The notable GDP advance in 2020 Q3 and Q4 meant a return close to the GDP level recorded before the onset of the pandemic. Under these circumstances, following the strong contraction in 2020 Q2, the cyclical component of economic activity (the output gap – Chart 4.8) is assessed to have significantly reduced its negative value even since the latter half of last year[78]. In 2021 H1, the output gap has flattened, reflecting the anticipation of moderate quarterly GDP rates. Similarly to the previous *Inflation Report,* the output gap is projected to enter positive territory in 2021 Q3. The indicator will then remain on a slightly upward trend, reaching 2.3 percent at the projection horizon (2023 Q1, when the foreseen magnitude of the output gap will further stand significantly below that of 2019, prior to the outbreak of the pandemic). This gradual trajectory of the output gap is correlated with the significant role played by potential GDP in driving economic growth (mirroring the favourable investment path and labour market resilience, also on account of the government measures taken in the context of the pandemic). The effective output gap of Romania's trading partners also contributes to the pattern of the domestic output gap. The monetary policy stance acts in a stimulative manner (with persistent effects over the entire projection interval), whereas the impact coming from the fiscal and income policy is projected to become restrictive as of this year, given the assumed start of the fiscal correction process.

Compared to the March 2021 *Inflation Report*, starting 2021 Q3 the output gap stands at higher values but without widening excessively, in the context of a more balanced projected rebound of economic activity, based not only on consumption, but also on investments. The magnitude of the output gap will further remain, at the projection horizon, below that assessed prior to the pandemic outbreak. The revision of this indicator results from: (i) the expected effects of the Next Generation EU funds on aggregate demand components (not only on investments, although they are specifically targeted, but also on consumption – through the impact on the labour market), (ii) the more favourable trajectory, starting with 2021 H2, of the effective

77 Assessments based on reports such as *Will Productivity and Growth Return after the COVID-19 Crisis?* of the McKinsey Global Institute or *Impacts of the COVID-19 Pandemic on EU Industries* of the European Commission.

78 The gaps of GDP components are also assessed to have slightly negative values at the beginning of 2021, except for the GFCF gap, which has a positive value, on the back of increases recorded during the past year. From the perspective of aggregate demand components, the projected output gap path is shaped by those of domestic demand, whereas net exports make a slightly negative contribution over most of the projection interval.

GDP gap of Romania's main trading partners (although it is projected to remain negative for a longer period of time compared to that of the Romanian economy), and (iii) the slightly more stimulative impact coming from real broad monetary conditions over the entire forecast interval. The influence of the discretionary fiscal policy stance is assessed to be similar to that in the prior round.

Aggregate demand components

Subsequent to the 2020 contraction, mitigated by extraordinary public expenditures and government support measures, final consumption is foreseen to post a robust increase, due almost exclusively to the contribution of households' individual consumption. The developments in this component mirror those of disposable income[79], which owes its positive dynamics forecasted for 2021 to the contribution of wages. This is projected to occur in the context of the extension in the first half of the year of the measures taken by the authorities to abate the adverse effects of the pandemic, and of the increase in wages during H2 on the back of a more substantial pace of economic recovery. Workers' remittances from abroad and social transfers are also expected to make favourable contributions to the dynamics of disposable income. In the medium term, the dynamics of households' individual consumption remain significant, reflecting: (i) the favourable outlook for the labour market, especially with regard to wage earnings, (ii) the option to use, to a certain extent, the financial resources such as savings accumulated throughout the past year, as well as (iii) a possible increase in the propensity to consume, assuming economic agents will regain their confidence.

Continuing the positive dynamics[80] recorded in 2020, gross fixed capital formation is envisaged to rise markedly in 2021 as well, amid further favourable developments in public investment as well as private investment, especially purchases of information and communications technology. In the medium run, GFCF is forecasted to witness strong annual growth rates, the dynamics of this component depending, however, on the authorities' stance regarding public investment spending[81], including that from EU funds, expected to have a stimulative impact on economic recovery. These are foreseen to be allocated via the multiannual financial frameworks (extension of the current one – 2014-2020 MFF – and the start of the new one – 2021-2027 MFF) and via the Next Generation EU programme, the actual absorption of the allocated amounts also depending on the administrative capacity of implementing investment projects. At the same time, the medium-term recovery of direct investment flows (after the sizeable contraction in 2020) is highly dependent on the normalisation of economic activity in both Romania and its trading partners, and is assumed to be gradual, spread over a period of several years.

79 Over the short and medium term, disposable income developments are marked by a substantial deceleration of the annual dynamics of social transfers compared to previous years.

80 Extraordinary in the context of 2020, a year severely burdened by the coronavirus pandemic.

81 The National Investment and Economic Recovery Plan provides guarantee schemes and tools to support liquidity in the economy, such as the "IMM Invest Romania" programme (extended until 30 June 2021) to guarantee working capital and investment loans for SMEs (with a ceiling of lei 20 billion), as well as the "AGRO IMM Invest" sub-programme and state guarantees for working capital and investment loans to large companies.

Following the significant decline in 2020, exports of goods and services are projected to show an upturn both this year (which also includes the statistical carry-over effect of the fast recovery in the latter half of the previous year) and over the remainder of the forecast interval. Against this backdrop, the anticipated developments in this component take into consideration the gradual recovery of the effective external demand, as well as the impact of the real effective exchange rate – foreseen to become quasi-neutral – on the price competitiveness of local products. Over the longer term, the dragging structural features of the economy (e.g. the slow catching-up process regarding infrastructure development) are further seen to exert a downward effect on export performance.

Imports of goods and services are expected to post annual growth rates relatively similar to those of exports, also taking into account the stimulative effect of the latter, given that numerous exporting sectors extensively use imported intermediate goods. Overall, net exports of goods and services are anticipated to continue making negative contributions to GDP growth in both 2021 and 2022, but significantly smaller than in the previous year.

In 2020, the current account deficit continued to worsen, reaching 5.2 percent of GDP, mainly due to exports of goods declining more severely than imports thereof. Under these circumstances, in 2020 as well, the current account deficit exceeded the 4 percent-of-GDP multiannual indicative threshold set by the European Commission as a scoreboard indicator for EU Member States. In the short and medium term, the current account deficit-to-GDP ratio is foreseen to level off. Its correction is hindered by the upward pressures on imports due to the reduced capacity of domestic supply to accommodate demand surplus. The financing of the current account deficit is anticipated to be only partly covered by stable, non-debt-creating capital flows over the entire projection interval, but at the same time is envisaged to reach higher values than in the prior year in both 2021 and 2022. The implementation of investment projects via the Next Generation EU recovery instrument lays the groundwork for a more favourable investment climate, expected to be also mirrored in a relatively swifter increase in the direct investment volumes, and implicitly in their faster return to pre-pandemic values. At the same time, capital transfers are foreseen to rise significantly, amid the overlapping of the 2014-2020 Multiannual Financial Framework, already at an advanced stage, with the Next Generation EU instrument and the standard resources of the 2021-2027 Multiannual Financial Framework.

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[82] of the leu. The exchange

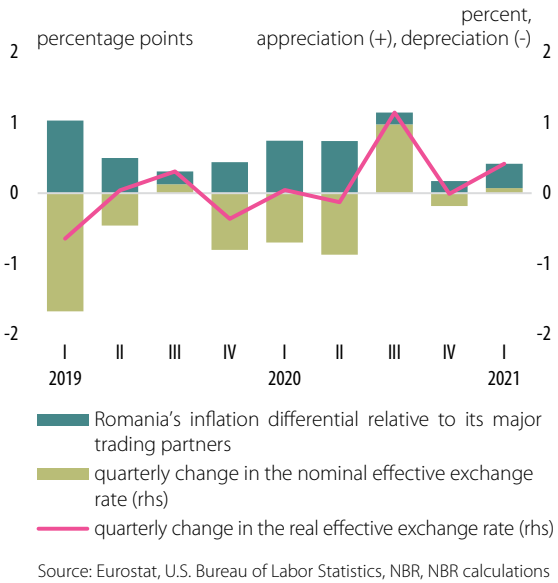
[82] The relevant exchange rate for the NBR's macroeconomic model for analysis and medium-term forecasting relies on the EUR/RON and USD/RON exchange rates, with the weighting system mirroring the weights of the two currencies in Romania's foreign trade.

rate exerts its influence via the net export channel, as well as via the effects on wealth and balance sheets of economic agents[83].

The baseline scenario of the projection shows that real broad monetary conditions will maintain their stimulative impact on economic activity, at values slightly higher than those from the previous *Report*. The breakdown shows that real interest rates on both new loans and new time deposits in lei are anticipated to exert almost constant, albeit stimulative effects over the projection interval, reflecting also the slight rise in inflation expectations during the current year. The projected relative stability in nominal terms encompasses the favourable impact of the latest decisions made by the NBR Board to gradually cut the monetary policy rate and to narrow the symmetrical corridor of interest rates on the NBR's standing facilities around the policy rate[84].

Within real broad monetary conditions, the component related to the effect of the real effective exchange rate (Chart 4.9) is estimated to make, via the net export channel, a quasi-neutral contribution over the entire forecast interval.

Chart 4.9. Quarterly change in the effective exchange rate



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

The wealth and balance sheet effect is estimated to make a slightly stimulative contribution to real broad monetary conditions in the course of this year, and a close-to-neutral one thereafter. The breakdown shows, on the one hand, that the real foreign interest rate (3M EURIBOR) is in a favourable position in 2021. On the other hand, an unfavourable counterbalancing effect stems from the anticipated increase in the sovereign risk premium. This takes place amid investors showing a fluctuating risk aversion towards emerging markets, the most exposed being those with macroeconomic imbalances built up before and exacerbated by the current pandemic. Nevertheless, mention should be made that an improvement has been recorded in expectations[85] on future developments in these imbalances – especially in the budget deficit. The materialisation of these expectations might contribute to the path reconfiguration for the risk premium at a level below that presently envisaged. At the same time, the changes in the gap of the real effective exchange rate of the leu are assessed to have a quasi-neutral effect via the wealth and balance sheet channel over the entire forecast interval.

83 The relevance of this channel has gradually declined in recent periods, given the narrowing of the share of foreign currency-denominated loans in total credit to the private sector, amid the faster rise in leu-denominated flows versus those in foreign currency.

84 According to the monetary policy transmission mechanism, this impact is visible with a time lag.

85 The improvement of these expectations is also suggested by the upward revision of the outlook on Romania's rating made by Standard & Poor's on 17 April 2021.

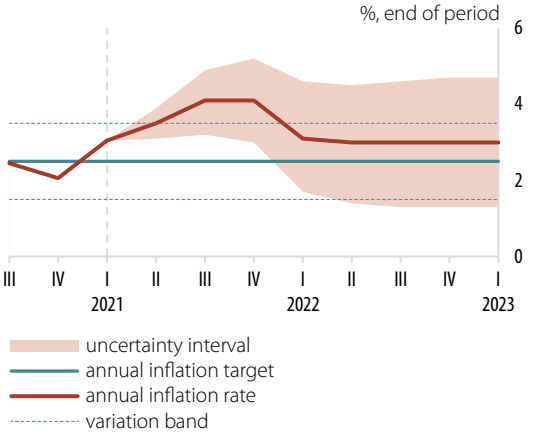
In the particular context of the persisting health crisis, the monetary policy stance of the NBR has been tailored to preserve price stability over the medium term in line with the 2.5 percent ±1 percentage point flat inflation target, in a manner supportive of the recovery of economic activity in the context of fiscal consolidation, while safeguarding financial stability.

4.4. Risks associated with the projection

As the immunisation of the population progresses, the public health crisis is envisaged to gradually loosen its grip. However, it remains the main source of risk to the macroeconomic projection. The SARS-CoV-2 infection rate may see new spikes, especially in the event of more infectious genomic variations that may be more resilient to the existing vaccines. Moreover, even if the existing vaccines prove their effectiveness against possible genomic strains, it is still not known to what extent people fully vaccinated will be protected over time. The resurgence of infections would call for keeping in place or even tightening social distancing rules again both locally and globally, putting new obstacles in the way of a rapid and sustainable economic recovery. Additional uncertainties surround also the economic impact of the health crisis, both in the short run, amid the adaptation of economic agents to the new conditions, and in the medium run, given the structural changes brought about by the pandemic, affecting the productive potential of the economy.

The risks induced by the pandemic crisis have decreased as vaccination campaigns were rolled out. The pace of vaccination is however surrounded by uncertainties, when measured against the increase in new cases of SARS-CoV-2 infections. The process could see slower progress in the event of bottlenecks in the vaccine production and distribution at global level, the emergence of local logistical difficulties (especially in the rural area), as well as of a possible increase in the population's reluctance to be vaccinated. Such developments could delay an improvement in the epidemiological situation, possibly leading to an entrenched economic growth pattern defined by social distancing rules, that could persistently affect demand for certain services (namely, face-to-face services).

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 2005-2020. The magnitude of forecast errors is positively correlated with the time horizon they refer to.

Source: NIS, NBR calculations and projections

The balance of risks to the annual inflation rate projection (Chart 4.10) is assessed as being tilted to the upside compared to the path in the baseline scenario, primarily over this year. At the current juncture, high risks rather to the upside are associated with the future evolution of energy prices. Both labour market prospects and the future fiscal and income policy stance are further relevant sources of uncertainty. In addition, risks also stem from the external environment, being directly correlated with the future evolution of the pandemic crisis and of the international commodity prices.

A risk factor whose relevance has recently grown refers to the future dynamics of natural gas and electricity prices. The natural gas market was affected by the low temperatures reported last winter at global level. From this perspective, with utility contracts being renewed (usually on an annual basis), risks arise from the behaviour of the two major local suppliers, as prices for end-users may undergo higher increases than those envisaged in the baseline scenario. In the case of electricity, inflationary pressures may also stem from the future moves of the main market players. In spite of the electricity market liberalisation starting 1 January 2021 and of the expected higher competition that should have put downward pressure on prices, free market offers showed an increased rigidity. Given the observed historical developments, in the future, electricity supply prices might come into line with the prices charged by the largest electricity suppliers, potentially impacting the aggregate price dynamics in the economy. In the event of such risks materialising, economic agents' expectations on the annual inflation rate might be affected, thus generating additional inflationary pressures.

The same as in the previous projection rounds, the future fiscal and income policy stance remains a significant source of uncertainty. Although the 2021 budget confirms the start of fiscal consolidation, its future phases are marked by elevated uncertainty. From this perspective, the pace of fiscal consolidation, the configuration of the corrective fiscal measures and implicitly their impact on the annual inflation rate remain clouded in uncertainty. The possible deviations from the fiscal adjustment process undertaken by the authorities (for instance, a possibly larger volume of resources allocated for the public health crisis management) could call for the future adoption of somewhat tighter fiscal measures.

Labour market developments remain further marked by high uncertainty, compounded by the prospects of public authorities withdrawing their support measures. After the unwinding of these measures, certain economic units may encounter financial difficulties possibly leading to adjustments in production costs (in the form of lower wage costs), should firms stay in the market. On the other hand, inflationary pressures may stem from the additional costs induced by firms' adaption to the new macroeconomic context passing through into consumer prices. Labour supply could also see reconfigurations owing to a possible increase in inactive population, especially in the event of a protracted pandemic crisis.

On the external front, the future evolution of the COVID-19 pandemic continues to fuel risks and especially uncertainties. A possible resurgence of the public health crisis would hamper economic recovery. New bottlenecks could emerge in global value chains. At the same time, high uncertainties are associated with growing asymmetries in the vaccination pace across countries. In this light, a slow progress in the vaccination campaigns, particularly in emerging economies, could cause the existing disparities to increase. New episodes of dwindling global risk appetite could lead to portfolio reallocations worldwide, with an adverse impact on more vulnerable economies. Another source of uncertainty refers to the future impact of the monetary policy stance pursued by various economies, in the context of the future decisions by major central banks and of potential deviations from the visible trends around them.

Favourable prospects are however associated with Romania committing EU funds under the Next Generation EU programme designed to boost economic recovery both locally and across Europe. The spillover effects on the economies' productive capacity could be notable, conditional upon the complexity of investment projects carried out and the fulfilment by the competent national authorities of the targets in the National Recovery and Resilience Plans in order to get access to EU funds. Although Romania could benefit from significant funds via the Next Generation EU programme, inherent uncertainties surround the absorption pace, in the context of potential disruptions in the institutional capacity to prepare and implement investment projects.

A risk whose significance is reiterated in the current projection round refers to the future dynamics of the international commodity prices. The latter have recently seen notable rises amid improved expectations on the global economic revival and some supply-side shocks. The prevalence of such shocks is not ruled out in the future. Additional inflationary pressures could arise from possibly larger disruptions in global production and distribution chains. In the event of their fragmentation, the availability of some products could be affected, with an adverse impact on their prices. In addition, in the case of building materials, the pick-up in commodity prices could be heightened by the favourable prospects on infrastructure projects and green energy projects (particularly in the context of global stimulus packages). At the same time, inherent risks are associated with climate changes, which carry the potential to impact the supply of agri-food products locally, as well as regionally or even worldwide. To these add the risks related to increased purchases for strategic reserves – that some major world economies have already embarked on –, as well as those stemming from the spread of African swine fever, with an adverse impact on the pigmeat price.

Furthermore, uncertainties are associated with the future movements in Brent oil prices. Risks stem from a likely higher volatility, with two-way developments being possible. The oil price trajectory in the baseline scenario may undergo reconfigurations coming from the supply side, amid rather inflationary factors (decisions by OPEC+, uncertainties about the duration of the agreements in place, as well as the possible escalation of military tensions in the Arab Peninsula). Besides, new inflation bouts could arise from the demand side, especially owing to an increased optimism about the economic recovery (*inter alia*, in the context of the fiscal stimulus package extended in the USA, but also at European level, in light of the investment projects implemented under the Next Generation EU programme) and to a possibly faster easing of mobility restrictions. Opposite developments may occur in the event of an unanticipated increase in the number of new infections.

Abbreviations

CPI	consumer price index
DG ECFIN	Directorate General for Economic and Financial Affairs
EC	European Commission
ECB	European Central Bank
ESI	Economic Sentiment Indicator
EU	European Union
Eurostat	Statistical Office of the European Union
FAO	Food and Agricultural Organization of the United Nations
GDP	gross domestic product
GFCF	gross fixed capital formation
HICP	Harmonised Index of Consumer Prices
ILO	International Labour Office
IMF	International Monetary Fund
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
3M	3 months
12M	12 months
3Y	3 years
5Y	5 years
10Y	10 years

Tables

Charts