National Bank of Romania

Inflation Report

August 2018

Year XIV, No. 53

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

Foreword

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

Apart from analysing the most recent economic, monetary and financial developments and explaining the rationale and the manner of implementing monetary policy in the previous period, the *Report* includes the National Bank of Romania's quarterly projection on inflation over an eight-quarter horizon, including the associated uncertainties and risks, and a policy assessment built upon 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 6 August 2018 and the cut-off date for the data underlying the macroeconomic projection was 1 August 2018.

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

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Summary

Developments in inflation and its determinants

The annual CPI inflation rate stopped increasing in June, when it stalled at 5.4 percent, above the variation band of the inflation target, and slightly above the forecasted level. At the same time, in Q2 as a whole, its advance saw a significant moderation, as expected, while the rise versus March 2018 owed solely to the exogenous components of the consumer basket, namely the dynamics of fuel prices, influenced mainly by the developments in the international oil price, and the hike in tobacco product prices amid a new adjustment of the excise duty levied on this category of goods. A slowdown in the annual core inflation rate had a counterbalancing effect. Under the circumstances, for the first time over the last six quarters, the advance in the annual CPI inflation rate was less pronounced, indicating a flattening of the inflation curve. By contrast, the average annual CPI inflation rate continued to speed up, adding more than 1 percentage point, from 2.5 percent in March to 3.6 percent in June. The average annual HICP inflation rate followed a similar path, going up from 1.9 percent in March to 2.9 percent in June.

During 2018 Q2, the annual adjusted CORE2 inflation rate saw a deceleration, coming in at 2.9 percent in June, inter alia, amid a base effect. This value stood 0.2 percentage points lower than the projection in the previous Report, as a result of the unanticipated moderation of aggregate demand pressures on inflation in the first part of this year and a more favourable evolution of the leu exchange rate versus the euro. The indicator remained, however, relatively elevated, under the persistent influence of pressures from fundamentals: the increase in companies' costs (energy, labour force), the positive output gap and economic agents' high expectations regarding price developments.

The annual dynamics of unit labour costs economy-wide rose in 2018 Q1 (by 4.9 percentage points from 2017 Q4 to 15.6 percent), as the loss of momentum seen by labour productivity was accompanied by a faster growth of the compensation of employees. Industry saw a similar evolution, albeit of a lower magnitude, with the annual dynamics of unit wage costs climbing to 6.6 percent January through May (2.4 percentage points above the value in the previous interval). Apart from the unfavourable contribution of cyclical factors, the persistence of structural constraints, especially those related to the quantitative and qualitative labour market mismatches, continued to contribute to mounting pressures from unit costs. Under the circumstances, inflationary pressures from labour market developments are likely to persist in the coming periods, with a direct erosion effect on the external competitiveness of the Romanian products. Although the developments over the last quarters had an adverse impact on external competitiveness, in 2008-2017 Romania reported more favourable dynamics of unit labour costs (calculated at the purchasing power standard) compared to the average posted by EU Member States.

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

In its meeting of 7 May 2018, the NBR Board decided to raise the monetary policy rate to 2.5 percent per annum from 2.25 percent. At the same time, the Board decided to increase the deposit facility rate to 1.5 percent per annum and the lending facility rate to 3.5 percent per annum. In line with the previous forecast, the annual inflation rate went up to 4.95 percent in March, mostly on account of supply-side factors, especially the hike in fuel prices, as well as due to core inflation. The latter continued to climb owing to pressures from excess aggregate demand in the economy, the rise in production costs (labour force, utilities), some influences exerted by the dynamics of the leu exchange rate, as well as amid a further upward adjustment of short-term inflation expectations. The new forecast scenario reconfirmed the previous projection, indicating the slight rise and subsequently the flattening of the annual inflation rate for several months above the variation band around the target, before its return in the vicinity of the upper bound of the variation band at the end of the current year.

The uncertainties and risks associated with the projection stemmed from both the domestic and the external environment. On the domestic front, these came mainly from administered prices and labour market conditions. External risks related to future developments in the international oil price, the economic growth rate and the dynamics of inflation in the euro area and, implicitly, to the monetary policy stance of the ECB and the central banks in the region.

Afterwards, statistical data showed the increase in the annual inflation rate to 5.41 percent in May, above the previous forecast, owing to supply-side factors, mainly significant, faster-than-expected hikes in the prices of fuels and tobacco products. At the same time, the annual adjusted CORE2 inflation rate dropped to 2.99 percent in May on account of processed food and services prices, which were influenced by the moderation in the growth rates of international prices of some agri-food products and the evolution of the leu exchange rate against the euro. In 2018 Q1, economic growth saw a more pronounced deceleration than previously anticipated, given the lower contribution of domestic absorption, while the contribution of net exports to real GDP dynamics improved, causing a slowdown in the widening of the current account deficit, which remained, nevertheless, high.

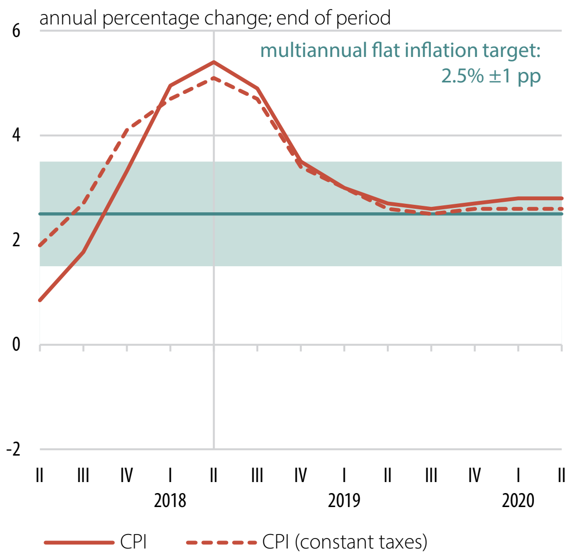
In the NBR Board meeting of 4 July 2018, the latest assessments reconfirmed the medium-term forecast in the previous *Inflation Report*. The assessment was further surrounded by significant risks and uncertainties stemming mainly from labour market conditions, administered price developments and the oil price, as well as from the volatility on the international financial market. The risks associated with euro area and global economic growth prospects, as well as with the danger of escalating trade protectionism remained further relevant.

Based on the data available at that time and in the context of the identified risks and uncertainties, the NBR Board decided to keep the monetary policy rate at 2.5 percent per annum. Furthermore, the Board reiterated the importance of an adequate dosage and pace of adjustment of the monetary policy stance, from the standpoint of anchoring inflation expectations and keeping the annual inflation rate on the path shown by the NBR's medium-term forecast, while safeguarding financial stability.

Inflation outlook

Compared to the May 2018 *Inflation Report*, the projected values of the annual CPI inflation rate in the baseline scenario were revised downwards, by 0.1 percentage points for the end of this year and by 0.3 percentage points for the end of next year. Specifically, inflation rate is projected to slow down to the 3.5 percent bound of the variation band of the target at end-2018 and 2.7 percent at end-2019. At the 8-quarter projection horizon, i.e. 2020 Q2, it is seen reaching 2.8 percent. The revisions against the previous round owe to lower contributions from the adjusted CORE2 index and administered prices, partially offset by the higher contributions from fuel prices and tobacco product prices, yet only for this year. At constant taxes, the annual CPI inflation rate is foreseen to stand at 3.4 percent at end-2018 and 2.6 percent at end-2019, only 0.1 percentage points below the previously forecasted levels.

Inflation forecast



Source: NIS, NBR projection

The baseline scenario of the projection envisages economic growth to slow down during 2018, before gaining some momentum in 2019, when it is expected to recover towards an annual rate of increase close to that of potential GDP. Along with the GDP advancing at a lower pace than in the previous year, the baseline scenario foresees the return to a more balanced contribution of its components, i.e. domestic demand and net exports, to growth. Specifically, consumption will post the sharpest deceleration in the course of this year, mirroring the anticipated dynamics of households' real disposable income, but it will remain the major driver of GDP expansion. Gross fixed capital formation will, in turn, continue to recover, yet its annual traction will be affected by less favourable performance in the first part of 2018, remaining strictly contingent on the pace of EU structural and investment funds absorption, a process that is expected to fare better over the coming years. At the same time, the contribution from net exports will improve, being anticipated to be close to neutral, after the negative readings recorded in recent years.

According to the baseline scenario, the current account deficit is seen further following the uptrend it embarked upon in 2015, remaining though below 4 percent of GDP over the medium term and witnessing a flattening of its upward path also against the projection in the previous *Report*. When compared to its regional peers, however, a matter of concern is the further divergence between the values of this indicator both in recent years and over most of the projection interval, hinting at a faster build-up of macroeconomic imbalances in Romania. External deficit financing is envisaged to be covered by stable, non-debt-creating capital inflows, yet the projection points to the share of these flows in nominal GDP remaining below those registered from 2014 to 2016, due basically to the lower volume of EU structural and investment funds attracted by Romania under the 2014-2020 Multiannual Financial Framework.

Compared to the previous *Report*, the domestic output gap was subject to a new downward reassessment, amid the first-quarter moderation of economic growth to 4 percent, from 6.7 percent in 2017 Q4, which is indicative of a return of economic activity towards the potential rate of increase. Hence, the annual average of excess demand for 2018 is below that estimated for 2017; nevertheless, in quarterly terms, the output gap will post a moderate uptrend starting 2018 Q2, while from 2019 Q2 onwards this path is anticipated to reverse, amid a reconfiguration to close-to-neutral levels of both real broad monetary conditions and the discretionary fiscal policy stance, i.e. the fiscal impulse.

The annual adjusted CORE2 inflation rate is forecasted to reach 2.7 percent at end-2018 and 3.2 percent at end-2019, both values having been revised downwards from the previous *Inflation Report*. To this revision have contributed the abating pressures of aggregate demand – exerting persistent effects on annual core inflation –, as well as the swifter fading-out of pressures coming from the prices of some agri-food commodities with an impact on processed food prices. Looking at the dynamics of the adjusted CORE2 index, however, inflationary pressures on the annual core inflation rate continue to stem this year from the output gap and inflation expectations of economic agents and next year from the anticipated developments in prices of imported goods, amid the projected trajectory of external prices.

Inflation components beyond the monetary policy scope are seen to make a cumulative contribution of 1.9 percentage points to the annual CPI inflation rate for the end of 2018, 0.3 percentage points higher than that published in the previous *Inflation Report,* and of 0.7 percentage points for the end of 2019, down by 0.2 percentage points. For 2018, the major upward revisions stem from the dynamics of fuel prices and tobacco product prices. For 2019, nearly all revisions against the previous *Inflation Report* are attributed to the recent legislation on the VAT rate cut applicable to heating and other subcategories in the group of items with administered prices.

The monetary policy stance is configured to ensure an adequate dosage and pace of adjustment from the perspective of anchoring inflation expectations and maintaining price stability over the medium term, while safeguarding financial stability.

The balance of risks to the annual inflation rate projection is assessed as being tilted to the upside compared to its path in the baseline scenario. Relevant risks to the current projection stem further from both domestic and external sources.

Domestically, there are lingering risks of upward deviations in the projected inflation rate stemming from the still elevated level of labour market tightness, which may additionally fuel the excess aggregate demand in the economy. Moreover, from the perspective of public finance, it remains desirable to preserve a balance between the fiscal and income measures aimed at underpinning aggregate demand and the measures meant to enhance the economy's productive capacity. This way, excess demand in both private and public sectors might be prevented from being channelled towards imports of goods and services, which would inherently have consequences on the external imbalance, and, implicitly, on the reconfiguration of the baseline scenario of the projection via higher inflation rates and lower economic growth rates.

From a broader perspective, the consistent implementation of a balanced macroeconomic policy mix is called for, along with the furthering and deepening of structural reforms in the economy in order to ensure sustainable economic growth, without prejudice to the objective of price stability.

On the external front, a risk factor that became more relevant over the past few months is the further escalation of trade protectionism. Even though the current assessments, starting from the measures already in place (higher import tariffs), point to a marginal impact on the global economy, in a scenario that assumes an extension of these measures to a wide range of goods as well as their implementation by all trading partners, the negative effects could become considerable. In such a case, Romania's economy would be affected via the trade channel both directly and indirectly, as a result of weaker external demand and higher prices of imported goods, also amid the – highly likely – increase in global risk aversion, with an impact on the exchange rate of the leu versus the major currencies.

Against the background of heightened uncertainties, the developments associated with Brexit are further highly relevant, although a more accurate configuration of this risk hinges essentially on the final coordinates of the agreement between the United Kingdom and the European Union, which are unknown to date.

Volatile food price developments are further surrounded by inherent uncertainties arising from weather conditions, which carry the potential to influence the agricultural produce supply in both ways. Relatively balanced risks to inflation, conditional on the information available so far, stem from administered prices, yet uncertainties associated with their future evolution are still high.

A risk factor that has remained relevant also in the current round refers to international commodity prices, energy prices in particular, amid the recent developments in oil prices and elevated volatility on international markets in the past year.

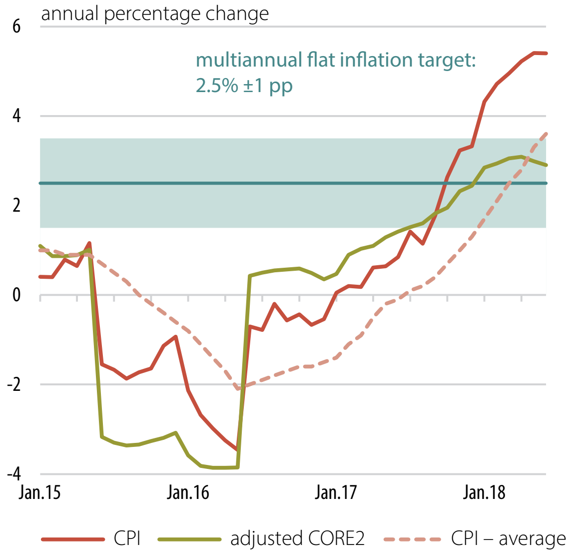
Monetary policy decision

In view of the annual inflation rate having stopped increasing in June and the outlook for its drop towards the upper bound of the variation band of the target in the final months of the year, as well as the slightly downward revision of its forecasted path over the longer time horizon, the NBR Board decided in its meeting of 6 August 2018 to keep unchanged the monetary policy rate at 2.50 percent. Moreover, the Board decided to leave unchanged the deposit facility rate at 1.50 percent and the lending (Lombard) facility rate at 3.50 percent. In addition, 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 reached 5.4 percent at end-2018 Q2, up by 0.45 percentage points from March, thus widening the gap versus the upper bound of the variation band of the flat target of 2.5 percent ±1 percentage point. This advance, which was less pronounced than in the previous period, owed solely to the swift dynamics of prices of some exogenous components, generated by the surges in the crude oil price on the international markets and by the higher excise duty on cigarettes. By contrast, the annual adjusted CORE2 inflation rate decelerated (2.9 percent in June 2018, down from 3.09 percent in April 2018), amid the fading out of pressures exerted by the prices of some agri-food commodities, as well as the slight appreciation of the domestic currency versus the euro. However, the fast annual dynamics of companies' costs (energy, labour), the sizeable positive output gap and the economic agents' high expectations on price developments suggest a persistent inflationary environment (Chart 1.1).

Chart 1.1. Inflation developments



Source: NIS, NBR

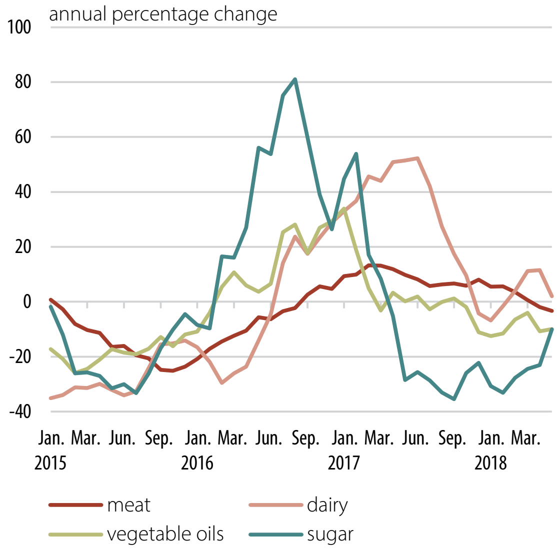
Similarly to the preceding two quarters, the path of the annual CPI inflation rate in 2018 Q2 was decisively impacted by the developments in some exogenous components. Fuels had the most significant influence, as the Brent oil price had embarked on a sharp uptrend since the beginning of April, its average for 2018 Q2 as a whole exceeding by around 12 percent that for the previous three months. This was due to a large extent to the political tensions between the US and Iran, but also to some dissension between the countries participating to the agreement to cap oil output. The impact on domestic consumer prices was compounded by the evolution of the USD/RON, the leu reversing almost entirely its robust pace of appreciation versus the USD seen in early 2018. Under these conditions, the annual inflation rate of fuel prices reached 17.4 percent in June – for the first time since 2005 –, to which, however, the excise duty hike in 2017 H2 also contributed by around 2 percentage points.

The increase in tobacco product prices also made a positive, albeit less striking contribution to the annual CPI dynamics, amid the hike in excise duty by approximately 2 percent on 1 April[1]. Moreover, prices in the energy sub-group rose (by approximately 4.5 percent in the case of natural gas in April), yet their contribution

[1] In this case as well, the price increases applied by producers were higher than those justified by the fiscal changes.

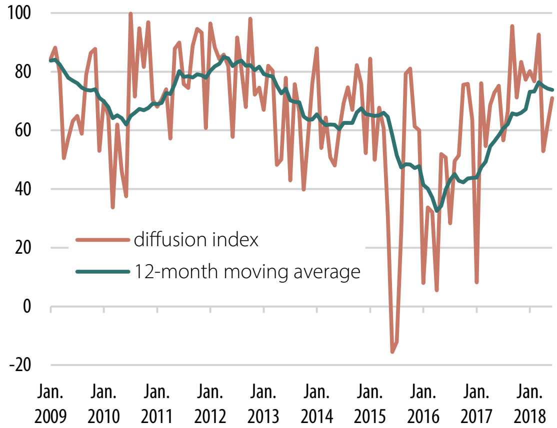
– the same as that of the entire administered prices segment – to the annual change in the aggregate indicator remained constant, as the current impact was similar in size to that of the hikes implemented in 2017 Q2.

Chart 1.2. Agri-food prices



Source: FAO

Chart 1.3. Core inflation diffusion index



Note: The diffusion index is calculated as the difference between the shares of goods and services included in the adjusted CORE2 index with positive monthly inflation rates and those with negative rates (100% coverage of the core inflation basket). Changes do not exclude the effects of tax measures.

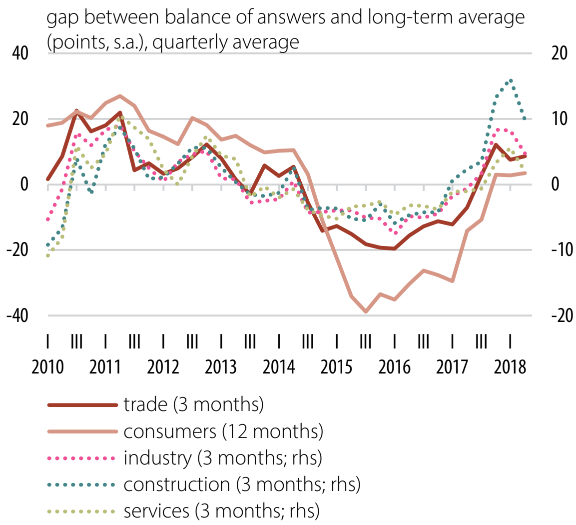
Source: NIS, NBR calculations

This time however, core inflation saw opposite developments. After five quarters of consecutive increases, the annual adjusted CORE2 rate posted a correction in 2018 Q2, down to 2.9 percent in June. The deceleration was primarily ascribable to the food component, due to the alleviation of pressures from the prices of agri-food items, but also to the base effect generated by the shocks felt in April-June 2017 on the meat product segment (mainly pork; Chart 1.2). Services also contributed to the slowdown of adjusted CORE2 inflation, amid the domestic currency strengthening against the euro in 2017 Q2 as a whole compared to the previous quarter.

Nonetheless, the quarterly change in core inflation, April through June 2018, remains above the average values recorded in the corresponding quarters of 2010-2016, reflecting the persistent influence exerted by fundamentals (Chart 1.3). The positive output gap remains sizeable, despite the lower-than-expected dynamics of economic activity in 2018 Q1; companies continue to build up pressures on production costs as a result of the upward trend of energy prices and the swift rise in unit labour costs, while economic agents' outlook on price developments is still characteristic of an inflationary environment. To a certain extent, this climate is also fostered by the firms' price policy, whose margins have been on the rise over the last years, correlated with the improvement in the cyclical position of the economy (Box 1). Whereas the trend persisted in the trade sector in 2017 as well, it appears to have stopped in consumer goods industries, given that the room for manoeuvre resulting from low commodity prices has narrowed, and competition among producers in this sector is high, which also face intense competitive pressure from imported products (estimated to cover about half of domestic consumption).

In 2018 Q2 as a whole, consumers and retailers adjusted upwards their expectations on price developments, while in industry, services and construction, the results of the DG-ECFIN Survey show easing expectations regarding price dynamics in the next three months. However, the balance of answers to the survey remains above the

Chart 1.4. Expectations on price developments



Note: The long-term average is calculated for 2010-2017.

Source: NIS/EC-DG ECFIN Survey

long-term average[2] for all economic agents (Chart 1.4). At the same time, financial analysts' inflation expectations for end-2018 further followed an uptrend, exceeding marginally the upper bound of the variation band of the target (even if the change was less pronounced than in 2018 Q1). By contrast, the expected longer-term inflation rates (up to two years ahead) remained inside the variation band, posting similar values to those anticipated in the first three months of 2018.

Average annual CPI and HICP inflation rates continued their upward paths seen in the previous period, further posting swift dynamics, as the values dampened by the fiscal changes implemented at the beginning of 2017 drop off the basis of calculation and are replaced by current rates. Specifically, the average annual CPI inflation rate increased by more than 1 percentage point, to 3.6 percent in June 2018. The same explanation applies to the average annual HICP inflation rate, which reached 2.9 percent at end-2018 Q2 (up 1 percentage point from March 2018). In this case, the differential versus the EU average continued to widen at a fast pace, coming in at 1.2 percentage points, with the European average of the indicator remaining stable at 1.7 percent for the third consecutive quarter.

Compared to the projection published in the previous *Inflation Report*, the annual inflation rate recorded in June 2018 exceeded expectations, following the higher-than-anticipated prices of motor fuels and tobacco products. The forecast error for these components was partially offset by the developments in adjusted CORE2 inflation, whose slightly-lower-than-envisaged values seem to be rather associated with an unfavourable sentiment in the retail sector and more favourable EUR/RON dynamics than those taken into account in the projection.

Box 1. Price-cost margins in the real sector

The inflation rate is directly influenced by the manner in which economic agents (especially retailers and consumer goods producers) set their price-cost margins. This is why central banks concern themselves with margins, all the more so as the literature documents the connection between their evolution and business cycle stages. In theory, however, it is possible to put forward arguments for both mechanisms conducive to a pro-cyclical behaviour of margins and mechanisms triggering a counter-cyclical pattern. Under the circumstances, it is not *a priori* clear whether during a period marked by excess aggregate demand, such as that seen by the domestic economy over the last two years, the economic agents' margin policy helps alleviate inflationary pressures associated with the rise in production factor costs or boosts them.

[2] 2010-2017.

Apart from going through a boom period, the Romanian economy has recently seen a step-up in competition across the trade sector – particularly amid the expansion of modern trade networks –, carrying the potential to affect the path of inflation via the margin policy. Similarly, however, the manner in which the stronger competition has reflected in the evolution of inflation is difficult to assess using only economic theory.

This analysis discusses a series of mechanisms on which firms can set their margin policy, with a focus on the two factors previously mentioned – the demand conditions and the competitive environment. At the same time, the analysis includes an empirical exercise to illustrate how margins changed in the Romanian economy over the last years, while providing a few coordinates for the influences that induced this evolution.

Setting margins: theoretical mechanisms

Perhaps the best-known theoretical result regarding a firm's decision on selling prices and, implicitly, margins stresses the importance of the competitive environment. In a perfect competition market, in order to maximise its profits, a firm must produce up to a level where the selling price equals the marginal cost of the last unit produced, unlike a monopolistic firm, for which it is more advantageous to charge a price higher than the marginal cost. Based on these considerations, fiercer market competition is expected to dampen firms' margins; conversely, lower competition would push them up. Nevertheless, structural effects can change the direction of influence of the factor in question; specifically, the step-up in competition to the point where the firms reporting lower margins exit the market could trigger a rise in the margin at sectoral level.

The same theoretical framework shows how the spread between the selling price and the marginal cost depends on demand elasticity in monopolistic competition markets: a weaker response of demand to a hike in prices allows for higher margins. As a matter of fact, firms generally aim to differentiate their products to make them more difficult to replace (which renders demand for such products more inelastic). Producing high quality products is one of the differentiation strategies, possibly supported by investment in research and development.

At the same time, however, the sensitivity of demand to prices can be influenced also by factors exogenous to the firm, such as business cycle stages. Thus, in the boom periods, consumers are somehow more relaxed about their own finances, which is why it is in the firms' interest to take advantage of the economic expansions to increase their margins. Nevertheless, given that in such periods costs tend to increase in their turn, driven by the stronger pressure on production factors, economic agents will be able to raise their margins only if cost rigidity exceeds price rigidity.

Moreover, it is possible that, in a context of strong demand, firms may not even seek to increase margins. Thus, if economic agents have in view a longer time horizon, that covers the entire business cycle, they can come to realise that a possible pick-up in margins during the boom period will cause the erosion of the market share, with a negative impact on the firm's longer-term profit that exceeds the short-term beneficial impact. When demand rises, these agents will keep their margins unchanged, or even diminish them, if they reach the conclusion that they should capitalise on the higher demand and improve their market position.

Therefore, even if economic theory shows some influences from the competitive environment or the stage of the business cycle on the evolution of margins, there is no consensus about the direction of their action.

Empirical evidence on the trajectory and drivers of margins

Of the two drivers mentioned before, it was the evolution of the domestic economy's position within the business cycle that stood out over the last years – the output gap entered an upward trend starting 2014, returning to positive territory during 2016, while, at present, excess demand ranges between 2 and 3 percent. The local economy features wages that are more rigid than prices (Iordache and Pandioniu, 2014), which indicates that firms can lift up their margins when demand increases. It is not, however, *a priori* clear, based on the theoretical mechanism previously discussed, whether firms would actually resort to such a change in an attempt to obtain short-term profits or, on the contrary, they aim to consolidate their market share by keeping margins steady or even diminishing them.

Another phenomenon seen by the economy in the past years, this time with implications for the competitive environment, was the expansion of large retailers, which spurred competition in this sector. In the same way, however, the impact of this phenomenon on the evolution of margins is *ex ante* not clear.

The empirical assessment of the mechanisms described first calls for an estimation of margins, which is approached in several ways in the literature – some based on macro data, some on micro data. This analysis uses financial and accounting information provided by firms[3] and the margin is determined at firm level – based on the difference between the average selling price and the average production cost of the whole range of products – by approximating it by the profit ratio:

$$\begin{aligned}\text{Average price-cost margin (\%)} &= \frac{\text{Average price-cost margin}}{\text{Price}} = \frac{\text{Price} - \text{Average cost}}{\text{Price}} = \\ &= \frac{\text{Price} \cdot \text{Quantity} - \text{Average cost} \cdot \text{Quantity}}{\text{Pice} \cdot \text{Quantity}} \approx \\ &\approx \frac{\text{Total income} - \text{Total expenses}}{\text{Total income}} = \frac{\text{Net profit}}{\text{Total income}}\end{aligned}$$

[3] The data cover the 2007-2017 period and refer to all economic sectors, except for the financial sector (section K in the NACE Classification), public services (sections O and P) and sectors mentioned in sections T and U (Activities of households as employers of domestic personnel, undifferentiated goods – and services – producing activities of households for own use; Activities of extraterritorial organisations and bodies). Data are provided by the Ministry of Public Finance. The observations corresponding to some reporting errors (for instance, negative expenses) or zero income were excluded from the population of firms, as no margin can be estimated. Moreover, a standard procedure was applied for removing outliers: starting from the distribution of margins and that of operating margins (at NACE division level, in a given year), only those observations corresponding to values ranging between the 5th and the 95th percentile were kept.

Next, a similar relationship is used to define an economic sector overall or the entire economy:

$$\text{Average margin}^{\text{aggregate level}}(\%) \approx \frac{\text{Net profit}^{\text{aggregate level}}}{\text{Total income}^{\text{aggregate level}}}$$

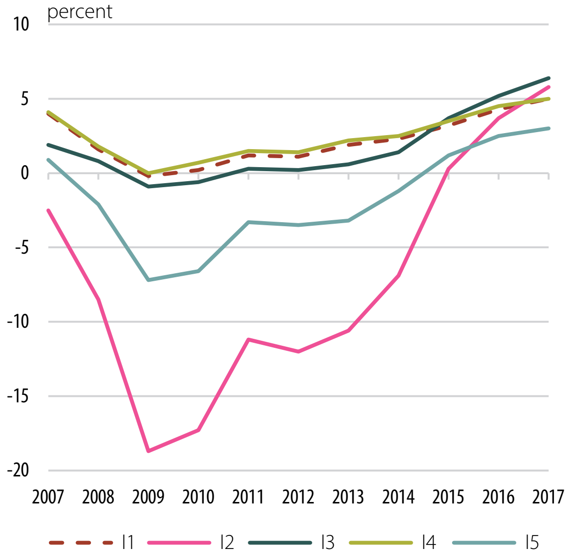
where the numerator and denominator are calculated based on corresponding aggregations.

The results obtained emphasise the rise in economy-wide margins in 2014-2017 (Chart A), the conclusion being supported not only by the evolution of the afore-mentioned indicator (I1), but also by the trajectory of the central tendency measures of the economy-wide distribution of percentage margins (the mean and median of the distribution – I2 and I3, respectively), and of the indicators obtained as the weighted average of individual margins, based on turnover (I4) and number of employees (I5).

Highly relevant economic sectors, from the perspective of the inflation rate, namely the trade sector[4] and the consumer goods sector[5], also featured overall a pick-up in margins over the last years, beyond the heterogeneity that is specific to the margin policy of each economic sector (Chart B). However, in 2017, the improving trend in margins in the consumer goods industry seems to have come to a halt, among the subsectors driving this evolution counting: the light industry, facing for years difficulties associated with the erosion of the competitive position, or manufacture of furniture, with market signals pointing to higher input costs in the recent period as a possible explanation. In the food industry, the successive increases of 2014-2016 no longer continued either; however, no pull-back was reported, so margins in 2017 were similar to those in the previous period.

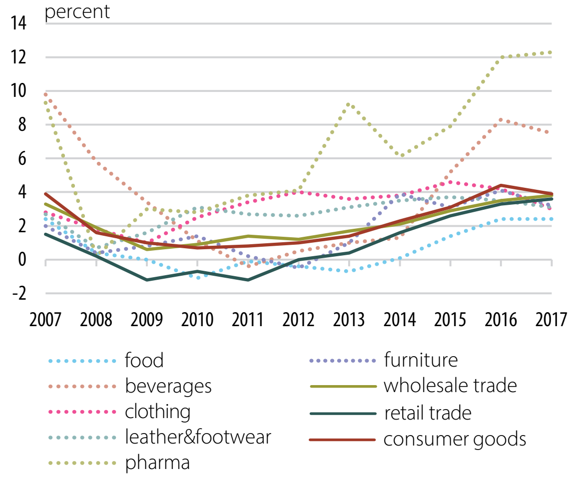
Interpreting the results in terms of inflationary pressures should take into consideration the fact that the analysis focused on the firms' entire

Chart A. Margins at aggregate level



Source: MPF, NBR calculations

Chart B. Margins* in consumer goods industry and trade



*) calculated by aggregating income and expenses at sectoral level

Source: MPF, NBR calculations

[4] NACE divisions 46 and 47.

[5] NACE divisions 11, 12, 14, 15, 18, 21 and 31, and NACE groups 10.1, 10.2, 10.3, 10.4, 10.5, 10.7, 10.8, 13.9, 20.4, 26.4, 26.7, 27.5, 30.9, 32.1, 32.2, 32.3, 32.4, 32.9.

activity, on both the domestic (relevant for CPI dynamics) and foreign market, firms likely having different margins externally, compared with those applied to local customers.

Another reason that calls for a somewhat cautious interpretation of the results is that the data also include firms whose activity appears to be disconnected from economic fundamentals, and therefore their behaviour does not hold useful information for the issue tackled. Specifically, some firms have a very poor economic performance, yet continue to be present on the market, even if, normally, they should have disappeared. For example, 3.6 percent of the observations included in the sample refer to firms that recorded average margins lower than -20 percent, over a period of at least six years. Referring to an extreme threshold, 4.1 percent of observations correspond to margins below -100 percent, which is difficult to justify for an economic agent under usual circumstances. However, this generally concerns small firms, so that the values and, more importantly, the trends of the aggregate indicators taking into account the size of the firms are not very sensitive to the presence of such observations in the sample[6]. Rather, including or excluding them affects the measures of central tendency of margin distribution, as each firm is given the same importance.

Over the past years, the upward trend of margins coincided with the uptrend of the output gap. In fact, the two indicators had similar trajectories over the entire period under review, which suggests that, in Romania, margins have a pro-cyclical nature, comparable with the one observed in other economies (among the studies documenting such margin behaviour are Deutsche Bundesbank, 2017, which uses data related to seven European countries, or Macallan and Parker, 2008, analysing the UK economy). Thus, the pressures on consumer prices exerted amid excess demand are associated not only with higher costs (material and/or wage costs), but also with similar developments in margins. In the Romanian economy, such inflationary pressures have become more visible only recently, with a certain lag compared to the output gap re-entering positive territory (towards the end of 2016), which, nevertheless, can be explained by the influence of the external environment, namely the offsetting effect of the low prices of commodities at international level[7].

The direct relationship between demand conditions and margin developments is also substantiated by the results of econometric estimations based on panel data (Table A).

6 For instance, by completely excluding the observations where the margin is lower than -100 percent, the indicator calculated for the whole economy increases by around 1 percentage point every year, thus maintaining its trend.

7 The Box entitled "Wage-productivity Relationship and Implications for Inflation" of the NBR's November 2017 *Inflation Report* illustrates the intermediate consumption distribution (as a share of total collections) becoming skewed to the left between 2013 and 2016.

Table A. Results of estimations

Explanatory variables / specifications	Dependent variable: margin					
	sectoral			at firm level		
	whole economy	industry		consumer goods industry[1]		trade
	(1)	(2)	(3)	(4)	(5)	(6)
Sector HHI • Exposure to the domestic market	0.000018	0.000034	0.000022**	0.000022***	0.000020***	
HHI						0.0003***
Sector turnover differential	0.0272***	0.0211***		0.0415**		
Sector turnover differential • GDP gap	0.0049*	0.0066**		0.0135***		
GDP gap						0.0089***
Production gap			0.2182***		0.1628***	
Production gap • GDP gap			0.0473***		0.0183***	
Size				0.0800***	0.0769***	0.0593***
Importer (Yes/No)				0.0391***	0.0360***	0.0574***
Constant	0.0254**	-0.3077***	-0.2370***	-0.2338***	-0.2202***	-0.1485***
Sectoral effects	Yes	Yes	Yes	Yes	Yes	Yes
Time effects	Yes	Yes	Yes	Yes	Yes	No
No. of observations	**800**	**300**	**319**	**188,436**	**210,354**	**1,505,535**
R-squared	**0.6452**	**0.6219**	**0.7841**	**0.0539**	**0.0537**	**0.0205**

Note: The calculations used the least squares method, taking into account the heteroskedasticity of the error term.

*, **, *** are statistically significant at the 90%, 95% and 99% levels, respectively

1) excluding the tobacco industry and the production of electronics for final consumption

Source: MPF, NIS, NBR, NBR estimations

The first three specifications connect the sector's margin to a measure of competition in that area of activity and to a measure of demand conditions, respectively. The intensity of market competition was estimated based on the Herfindahl-Hirschman Index (HHI), considering that higher concentration (higher HHI) leads to lower competition, facilitating higher margins (a mechanism documented in certain recent economic studies referring to the US economy[8]). However, the limitations of this proxy should not be ignored: (i) some sectors will be inherently characterised by a lower number of firms and, thus, by higher concentration, possibly in the context of higher entry barriers (as is the case of some areas that entail higher capital intensity and considerable initial investment, such as crude oil processing); (ii) HHI is built on the assumption that the entire sector of activity corresponds to a single market, when, in fact, the latter can be more fragmented (e.g., at a geographical level); (iii) HHI does not capture the intensity of competition with foreign firms, being relevant only for the domestic market (which is why the estimations include an interaction with exposure to the domestic market, calculated by subtracting from 100 percent the share of sector exports in the total sector turnover).

[8] For further details, see *Deutsche Bundesbank* (2017) and the works cited by this study.

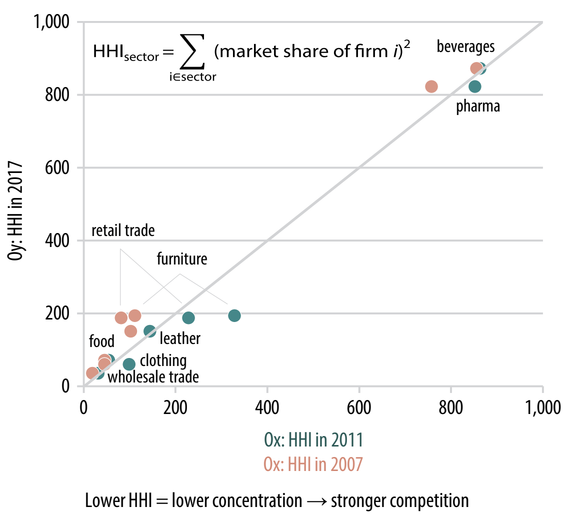
Demand conditions at sector level were assessed based on the differential between the turnover dynamics of the said area of activity and those of the entire economy. For the industrial sector, another proxy for demand conditions was determined as the difference between actual and potential production, the latter being estimated with the help of the Hodrick-Prescott filter.

The results of the estimations show that an increase in sectoral demand will translate to a higher margin for the sector, this effect being amplified by the cyclical position assessed for the whole economy, as captured by the interaction term. Specifically, in the case of a neutral output gap, a 10 percentage point pick-up in annual turnover growth rate (above the aggregate one) will result in an increase in the sector's margin of about 0.3 percentage points; adding to this are 0.05 percentage points for each percentage point of excess demand.

With regard to the influence of the competitive environment, the coefficient related to the interaction between the HHI and the exposure to the domestic market is positive, yet statistically significant only for the last specification run with sector data. This suggests an inverse relationship between domestic competition and margins, which is yet somehow masked by the above-mentioned limitations of the HHI as a measure of competition.

For a clearer picture of the influence exerted by the competitive environment on the inflationary process, the empirical exercise also sought to investigate the link between margins and determining variables based on information at firm level (specifications (4)-(6) in Table A), focusing on the areas of activity highly relevant for inflation: the consumer goods industry and the trade sector.

Chart C. Herfindahl-Hirschman Index in consumer goods industry and trade



Source: MPF, NBR calculations

Beyond the fact that these estimations confirm the direct link between demand conditions and margins, pointing at the same time to the fact that importers apply, on average, higher margins (most likely due to their access to goods or production inputs under more advantageous conditions, while another possibility is that they bring to the domestic market more exclusive final goods that are harder to replace), they also suggest that margins tend to be higher amid increased concentration. In this respect, both in the consumer goods industry and in the trade sector, the coefficient related to sectoral HHI is positive and statistically significant. Moreover, all the specifications estimated using microeconomic data include as determinants the size of the firm[9], which also has a positive and statistically significant link to the level of the margins.

9 The variable was defined based on the number of employees, with a value of 1 (for firms with 9 employees at most), 2 (10-49 employees), 3 (50-199 employees) or 4 (over 200 employees).

Specifically, as an economic agent increases in size (most likely witnessing a gain in market share as well), it will apply higher margins, and therefore lower margins are expected to prevail in a more fragmented sector.

Hence, it may be assumed that a step-up in competition (determined by a decrease in concentration, i.e. lower HHI) would reduce margins. Thus, in regard to trade developments, the expansion of modern chain stores contributed to the drop in margins in the sector, and, implicitly, to weaker inflation dynamics. Turning to consumer goods industries, they are characterised by an intense and/or intensifying competitive environment – a generally low HHI which was even lower in 2017 compared with 2011 (Chart C) –, which acted towards a slower growth of margins.

Conclusions

The demand conditions and the intensity of competition in the market reflect in the economic agents' margins, establishing the direction of these influences *a priori* being, however, hindered by the plethora of theoretical mechanisms that might govern the relationship between the variable of interest and its determinants. Empirical investigations revealed that in 2007-2017, the trajectory of margins in the domestic economy followed that of the output gap, suggesting they have a pro-cyclical behaviour. Specifically, inflationary pressures during boom periods are based not only on higher costs (material and/or wage costs), but also on similar developments in margins. At the same time, the results showed that the more intensely competitive environment observed in the areas of activity that hold a greater relevance for inflation – trade and consumer goods industries – had a dampening impact on margins.

References

Deutsche Bundesbank – "Mark-ups of Firms in Selected European Countries", *Monthly Report*, Vol. 69, No. 12, December 2017

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

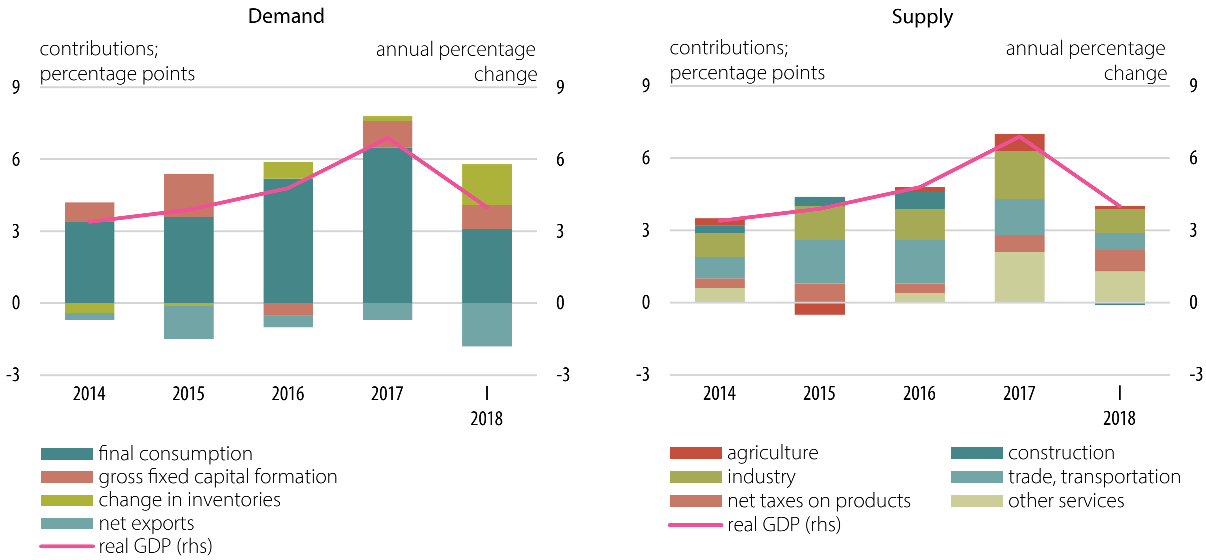
Macallan, C., Parker, M. – "How Do Mark-ups Vary with Demand?", Bank of England, *Quarterly Bulletin*, 2008 Q2

2. Economic developments

1. Demand and supply

Economic activity lost further momentum in early 2018, the modest quarter-on-quarter real GDP growth at end-2017 and the beginning of the current year translating into an annual pace of increase of 4 percent in 2018 Q1, less than half the post-crisis record hit in 2017 Q3, i.e. 8.8 percent. As compared with 2017 Q4, domestic demand rose at a slower rate, yet the limited capacity of the economy to accommodate this increase and the additional inputs driven by the favourable performance of exports led to the fast dynamics of imports, exerting further pressure on the trade balance (Chart 2.1).

Chart 2.1. Contributions to economic growth

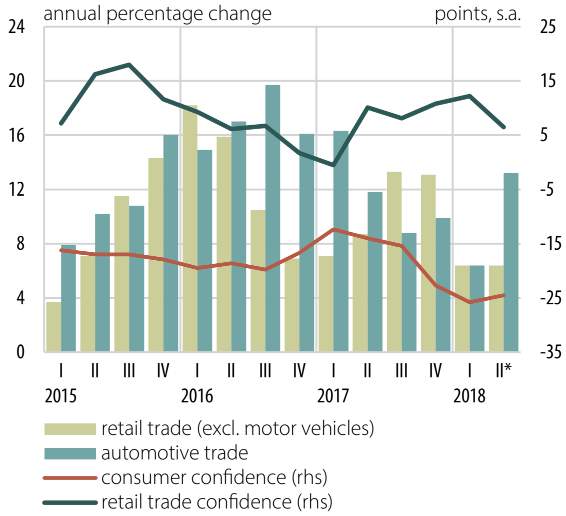


Source: NIS, NBR calculations

Private consumption increased at a slacker annual pace than in 2017 Q4 (from 8.3 percent to 4.1 percent), given that the developments in household disposable income were marked by the pick-up in inflation and the higher lending rates, while consumer confidence continued to deteriorate, on the back of the uncertainty related to the impact that the fiscal changes made at the beginning of 2018 had on net income, as well as to the general economic situation. In this context, the groups of products for which demand moderated visibly in 2018 Q1 were those highly sensitive to the changes in household purchasing power and sentiment, namely durables and market services.

Looking ahead, a recovery in consumer appetite becomes visible (without expecting however growth rates as strong as those recorded in the previous year), in view of

Chart 2.2. Trade and confidence indicators



*) Apr.-May 2018 for trade turnover

Source: NIS, EC-DG ECFIN, NBR calculations

the robust dynamics of the real net wage in March-May 2018 (over 9 percent in annual terms), as well as of the discontinuation, after four quarters, of the downtrend in consumer confidence, despite the very low average value of the EC-DG ECFIN indicator in April-June 2018 compared to the past three and a half years (-24.5 points). The outlook is confirmed by the trajectory of purchases of goods and services, the successive slowdowns in their annual pace of increase in 2018 Q1 being followed by a pick-up in April and May, also on account of a more pronounced recourse to borrowed funds. The positive prospects for demand are somewhat dampened by the declining optimism of companies in trade and, to a lower extent, in services, in Q2 the corresponding confidence indicators running below those reported over the last year (Chart 2.2).

In 2018 Q1, the general government budget execution led to a deficit of lei 4.5 billion (or 0.5 percent of GDP). The substantially smaller deficit than in 2017 Q4[10] – amid, however, the lower asymmetry of the budget execution pattern, given the surplus recorded in the same year-earlier period[11] – owed to the reduction in public expenditure[12], visible mainly in capital expenditure[13] and government spending on goods and services[14]; nevertheless, subsidies[15] and interest expenses had an opposite, albeit lower, effect. Conversely, budget revenues decreased[16] to a lower extent and chiefly under the impact of the decline in disbursements from the EU, their evolution reflecting at the same time opposite contributions coming, on the one hand, from the slacker dynamics of certain categories of tax revenues (VAT[17], excise duties, personal income taxes[18] and corporate income taxes)[19], and, on the other hand, from the considerable rise in receipts from social security contributions[20].

10 Lei 17.4 billion, i.e. 2.0 percent of GDP.

11 Lei 1.5 billion, i.e. 0.2 percent of GDP (versus a deficit of lei 14.6 billion, i.e. 1.9 percent of GDP in 2016 Q4).

12 Nonetheless, total public expenditure further increased in real annual terms, although at a slightly slower tempo (16.7 percent against 18.5 percent in the previous quarter).

13 However, the positive real annual dynamics of capital expenditure accelerated, also on the back of defence expenditure.

14 In addition, the fall in total public expenditure mirrored the impact of the contraction in EU-funded expenditure, whose effect on the budget execution result was nevertheless mostly offset by the similar developments in disbursements from the EU.

15 Also as a result of the payments to support agricultural producers and public passenger transport by rail.

16 The annual rate of change in real terms of total budget revenues remained in positive territory, declining however to 6.5 percent from 19.2 percent.

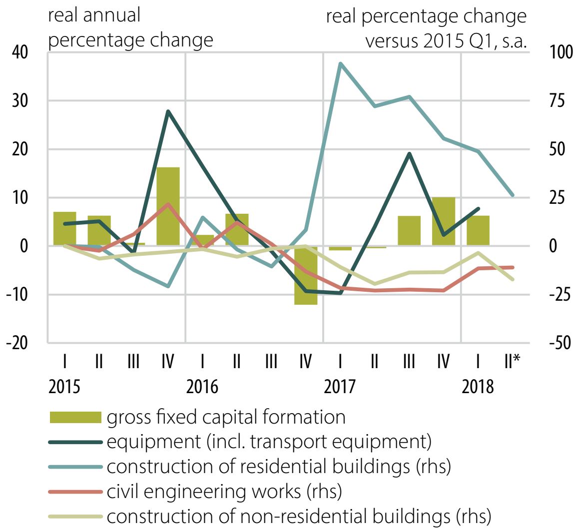
17 Also on the back of higher VAT returns than in the same year-ago period.

18 Amid the current year's cut in the income tax from 16 percent to 10 percent, along with the higher personal deductions in the calculation of the personal income tax on low wages.

19 In the same direction acted the downward adjustment in non-tax income, which continued to post, however, a positive real growth rate in annual terms.

20 Reflecting also the impact of the shift in social security contributions payable by the employer onto the employee (amid the hike in gross wages in the public sector following the enforcement of Law No. 153/2017).

Chart 2.3. Investment



*) Apr.-May 2018

Source: NIS, NBR calculations

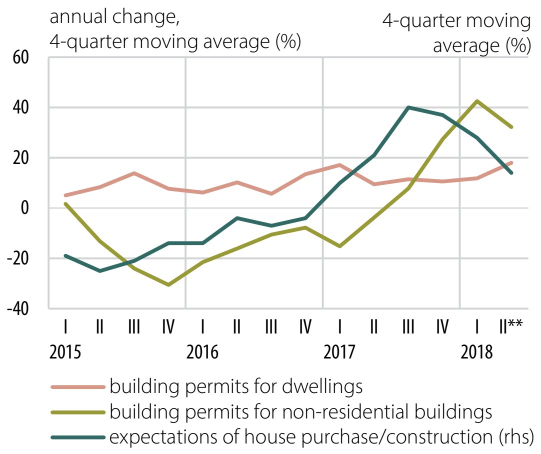
The annual pace of increase of gross fixed capital formation also decelerated (from 10.1 percent in 2017 Q4 to 6.3 percent in January-March 2018), yet this resulted, to a large extent, from a statistical effect associated with the residential sector boom in early 2017 (annual growth of over 80 percent). The annual dynamics of non-residential construction works and civil engineering works entered positive territory, yet a base effect made a substantial contribution in these cases as well, whereas equipment purchases rose at a faster tempo. These three components might stick to an upward course also in the period ahead, supporting a moderate growth of gross fixed capital formation, even though the appetite for residential investment is likely to weaken over 2018 (Chart 2.3).

In 2018 Q1, equipment purchases rose by 7.7 percent in year-on-year comparison, due to the still accommodative international financial environment and the new inflows of foreign direct investment. Investment targeted the expansion of existing facilities, increased automation and streamlining of production, and the manufacture of high-quality products, the relevant areas including the manufacture of electrical equipment, metallurgy and the automotive industry. The contribution of foreign direct investment is also worth mentioning in terms of building new production capacities, the developments in the manufacture of computer and electronic products and that of building materials standing out in this respect.

The volume of construction works decreased as compared with 2017 Q1 (down by 2.2 percent), the main segments embarking on divergent trends – an 8.9 percent fall in construction of buildings and an 8.2 percent increase in civil engineering works, respectively. Mixed developments are expected in the coming period as well. Specifically, on the one hand, infrastructure projects may witness a rebound, conditional on the step-up in EU funds absorption, and non-residential construction may resume growth. The latter is suggested by the approximately 32 percent rise in the construction area stipulated in building permits over the past 12 months (until May 2018) and by certain positive signals visible in the market for office property, logistic space (needed particularly to accommodate the higher sales of consumer goods), and commercial property, especially in towns with less than 250,000 inhabitants.

On the other hand, the outlook for the residential sector points to lower investment over the year as a whole. The hints in this respect derive from households' declining intention to purchase/build a home or make home improvements over the next 12 months, as illustrated by the EC-DG ECFIN Survey, from this year's weaker government support under the "First Home" programme as well as from certain market signals regarding the build-up of a stock of unsold flats. In fact, the contraction in residential construction works in January-May 2018 (a 10 percent cumulative decline

Chart 2.4. Outlook for the construction of buildings*

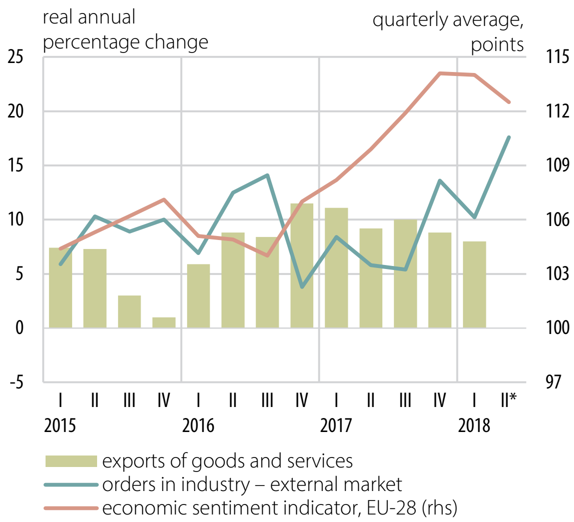


*) seasonally adjusted data

**) Apr.-May 2018 for building permits

Source: NIS, EC-DG ECFIN, NBR calculations

Chart 2.5. Exports of goods and services



*) Apr.-May 2018 for orders

Source: NIS, EC-DG ECFIN, NBR calculations

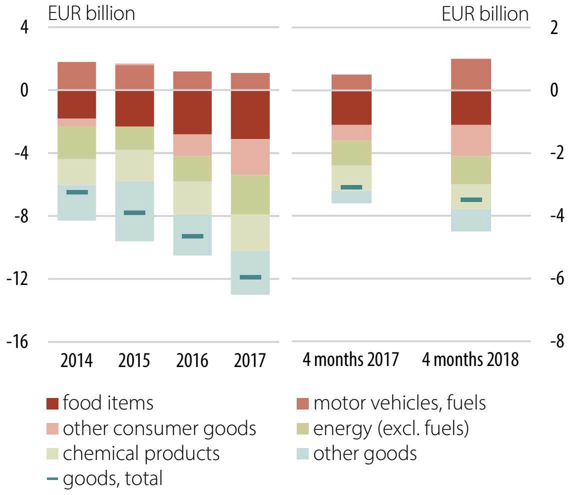
versus 2017 Q4) seems to confirm the prospects for poorer performance of this segment in 2018 (Chart 2.4).

Exports of goods and services continued to grow at a swift tempo (8 percent, real change), with relatively sizeable dynamics being anticipated in the forthcoming period as well, even though external demand may lose some traction, given that the weaker-than-expected developments in 2018 Q1 and the uncertainty surrounding the stronger protectionist tendencies worldwide resulted in downward revisions of growth projections for Romania's major trading partners. Apart from the still robust short-term forecasts of the pace of economic activity in the euro area, the portfolio of external orders to local industrial companies also hints at the resilience of exports: the slowdown in real growth seen in February and March 2018 came to a halt in April, so that in the first five months the indicator further posted a high rate of increase (13.1 percent, annual change), similar to that in 2017 Q4 (Chart 2.5).

Sales of goods abroad rose by 8.1 percent, the prevailing contribution being further made by exports of transport equipment, machinery and equipment, measuring and controlling equipment, electrical equipment. As far as the automotive industry is concerned, the volume of exports increased by 17 percent, being supported by the manufacture of parts for motor vehicles, which is integrated in global value chains, and particularly by sales of motor vehicles, which added almost a third, accounting for approximately 60 percent of the rise of the whole sector. Additional contributors to the advance in exports were agri-food commodities (especially oleaginous plants and cereals), given the outstanding crops of 2017, as well as pharmaceutical products, petroleum products and chemical products, in the latter case local manufacturers gaining export market share also following the closure of some chemical companies at the European level.

Imports of goods and services kept increasing at a swift pace in 2018 Q1 (11.5 percent in real terms), against the background of the still robust rise in domestic demand (5.8 percent) and the strong expansion of exports. The deceleration in consumer demand was mirrored by purchases from abroad (including motor vehicles), which continued, however, to advance by over 8 percent in annual terms. Conversely, the pick-up in technological investment bolstered imports of capital goods (+14 percent),

Chart 2.6. Balance on trade in goods



*) excluding goods produced under processing arrangements

Source: Eurostat, NBR, NBR calculations

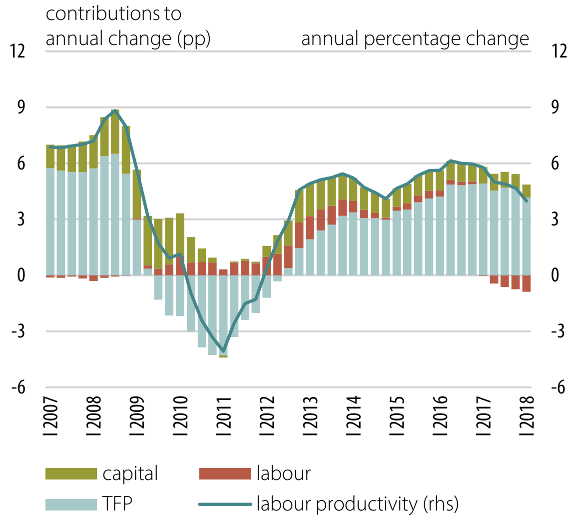
particularly of fabricated metal products, machinery and equipment. Purchases of intermediate goods also posted slightly faster dynamics, with more important contributions being made by imports of oil with a view to processing it in local facilities and of goods used in production by industries integrated in global value chains (such as motor parts).

Under the circumstances, the developments in the balance on trade in goods are further a matter of concern, in January-May 2018 the trade deficit widening by 14.5 percent as compared with the same year-earlier period (Chart 2.6). Moreover, net receipts from international services decreased slightly (chiefly on account of households' increasing preference for foreign travel and transportation services), so that their counterweight to the external imbalance of trade on goods declined to 65 percent (from 79 percent in January-May 2017).

Labour productivity

In 2018 Q1, labour productivity economy-wide further lost momentum, its annual growth rate decelerating by more than half from the previous quarter. This trend characterised all the key economic sectors (except for agriculture), being largely driven by the abatement of the positive impact of the cyclical position of the economy, which has been the main determinant of labour productivity gains over the recent period. Furthermore, the decomposition of the annual dynamics of the labour productivity trend shows stronger structural constraints, the larger negative contribution of employment being the result of the labour market mismatch in terms of number and skills (Chart 2.7). In this context, in 2018 Q1 the negative differential between the ILO unemployment rate and the structural unemployment rate further widened and the percentage of producers considering that labour shortage limits their development reached a post-crisis peak in most economic sectors (industry, trade, construction).

Chart 2.7. Decomposition of the annual change in labour productivity trend



Source: NIS, Eurostat, NBR estimates and calculations

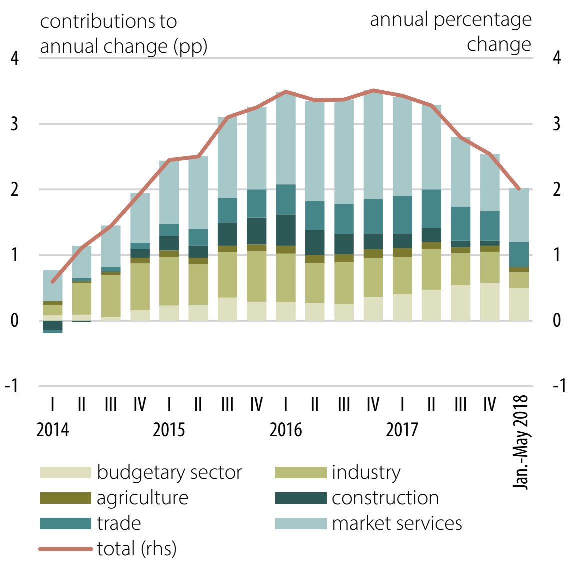
Industry also recorded slower-paced labour productivity, whose annual growth rate touched a five-quarter low (3.6 percent). Behind this deceleration stood chiefly manufacturing, the favourable contribution of cyclical factors becoming weaker during Q1. Specifically, the slacker pace of growth of euro area economies (particularly the German economy) led to slower dynamics of new external orders and a broad-based decline in the capacity utilisation rate in the main industrial groupings. Under the circumstances, the sole sub-sectors that witnessed faster annual productivity gains than in the previous quarter were hydrocarbon processing, in correlation with the modest start in 2017 (accounted for by the different overhaul schedules), and the chemical industry, amid the stronger external position of some local manufacturers.

Even though the performance of labour productivity in the first part of the current year was marked by the weaker positive cyclical influence, industry further shows signs of structural progress. Relevant in this respect is the series of recent or ongoing investments in sub-sectors such as: the manufacture of electrical equipment, where some major manufacturers have announced programmes to invest in research and development and engineering centres; the manufacture of computer and electronic products, as well as that of building materials, which are to benefit from the opening of important production facilities; metallurgy, where an increasingly large number of companies make investments likely to lead to a greater share of high-quality products in their portfolios. Last but not least, labour productivity in the automotive industry further posts a relatively robust annual growth rate for the second year in a row. This owes to the fast-paced automation of car manufacturers, on the one hand, and, on the other, to the swift tempo of production of the two car factories, as the models they currently produce are in a higher-than-expected demand in both the European and the local markets.

Labour market developments[21]

The slowing trend in the growth of payrolls in the economy persisted into the first five months of 2018 as well, the annual rate decelerating to 2 percent. This was driven by the private sector, the slacker growth being visible in construction (which is affected by the lack of infrastructure investment), market services (particularly trade and accommodation and food service activities, in line with the weaker consumption) and industry (Chart 2.8). In the latter case, the more sluggish hiring pace was almost broad based, except for the manufacture of machinery and equipment, against the backdrop of the higher external demand for such products. Even though this decelerating trend was observable in both the automotive industry and the related sub-sectors, the annual growth rates remain well above the average (ranging between 4 percent and 8 percent).

Chart 2.8. Number of employees economy-wide

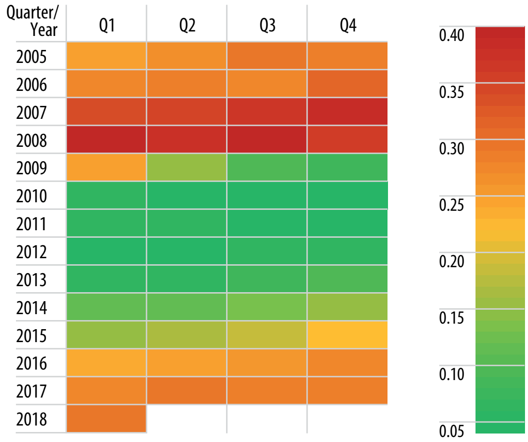


Source: NIS, NBR calculations

At the same time, the labour absorption capacity of the economy continued to undergo a slightly downward adjustment, the job vacancy rate further following the downtrend it had embarked on since mid-2017. Moreover, in January-May 2018,

21 The analysis is based on seasonally adjusted data.

Chart 2.9. Labour market tightness*

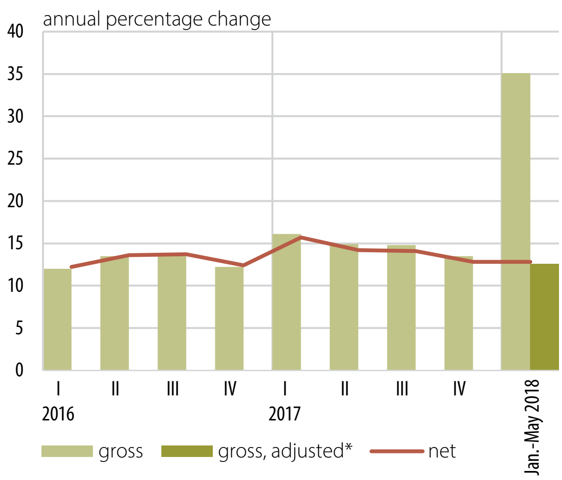


Note: The colours are correlated with the intensity of labour market tightness, assessed over the whole available sample (2005 Q1 – 2018 Q1).

*) seasonally adjusted data

Source: Eurostat, NBR calculations

Chart 2.10. Nominal wage earnings economy-wide



*) excluding the effect of the transfer of social security contributions

Source: NIS, NBR estimates

the excess labour supply contracted by 0.3/0.2 percentage points, to 3.7 percent in the case of the registered unemployment rate[22] and 4.5 percent in that of the ILO unemployment rate respectively, so that the labour market tightness indicator kept on flattening out (Chart 2.9). In structural terms, the deficiencies in the job matching process become more severe[23], being fuelled, on the one hand, by the high emigration rate – in 2017, almost 20 percent of the Romanians aged 20 to 64 were living in a different EU country[24] (17 percent of them having tertiary education) as compared with a 3.8 percent average across the EU – and, on the other hand, by the failure of the education system to align to labour market requirements and the lack of measures to integrate the economically inactive people into the labour market.

As regards the prospects for the number of employees economy-wide, the available surveys convey moderately positive signals. Specifically, for 2018 Q3 the Manpower Employment Outlook Survey hints at a recovery in the number of hires, without, however, matching the level recorded in the same period of 2017. The EC-DG ECFIN Survey also shows companies' intentions to hire in June-August 2018, with employment opportunities in trade and services and a relatively stable outlook in construction and industry.

January through May 2018, the annual dynamics of average gross wage earnings accelerated to 35.1 percent (up 21.6 percentage points from 2017 Q4; Chart 2.10). This step-up chiefly mirrored the transfer of social security contributions payable by the employer to the employee and the increase in the gross minimum wage economy-wide to lei 1,900 (an 11 percentage point higher hike than the rate of change implied by the aforementioned legislative amendment), as well as the substantial pay rises in the budgetary sector (in January, up 5 percentage points, on average, for all employees, adding to the increase implied by the shift in contributions, and in March, the raise in wages in healthcare to the level stipulated in

22 Post-2000 lows.

23 According to ManpowerGroup's 2018 *Talent Shortage Survey*, Romania's position deteriorated, as it came to rank second (out of 43 countries), after Japan, with respect to the difficulties facing companies in staff recruitment, with 81 percent of employers reporting such problems versus 45 percent, on average, across the states included in the research.

24 Lithuania, Croatia, Portugal, Latvia and Bulgaria, which occupy the next positions in the ranking, account for shares ranging between 10 percent and 15 percent.

the unified wage law for 2022 and in education by 20 percent, respectively). Although the beginning of 2018 was marked by uncertainty surrounding the effects on the net wage, throughout the first five months of this year average net wage earnings further posted the robust pace of growth seen in 2017 Q4 (12.4 percent in annual terms). A similar behaviour could be observed in the private sector (+11.2 percent, on average, in January-May 2018), whereas in the budgetary sector there was a marginal slowdown (-1 percentage point, to 17.8 percent), associated with the statistical effect related to the larger hikes in the first months of 2017.

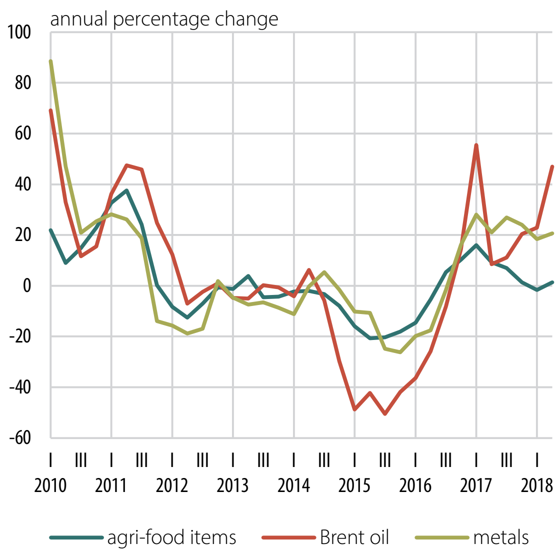
2. Import prices and producer prices on the domestic market

The rise in the Brent oil price to levels close to the USD 80 per barrel mark at end-2018 H1 and the increase in electricity prices on the domestic free market led to the faster annual dynamics of industrial producer prices on the domestic market to 4.7 percent in April-May 2018. Conversely, the annual growth rate of producer prices for consumer goods decelerated significantly, this movement being linked with the trend in international agri-food commodity prices over the past year and the slacker pace of increase of consumption.

2.1. Import prices

The further robust dynamics of global industrial activity and certain supply adjustments resulted in the swifter annual growth rate of prices of metals and energy commodities in 2018 Q2, in the latter case the trend being even more pronounced (Chart 2.11).

Chart 2.11. International commodity prices



Source: Bloomberg, FAO, NBR calculations

Amid the heightening geopolitical tensions, the Brent oil price was stuck to an upward course in 2018 H1 as well, testing temporarily the USD 80 per barrel mark towards the end of the period, so that in Q2 as a whole the annual rate of change moved up 24 percentage points from the previous quarter, to 47 percent. The price of natural gas followed a similar path, its annual pace of increase standing at approximately 50 percent in Q2. The announced and subsequently adopted protectionist measures and the sanctions imposed by the USA to a major aluminium producer in Russia caused volatility in the metal market, the annual dynamics of metal prices remaining at around 20 percent in 2018 Q1-Q2. At the same time, the annual rate of change of the price of iron ore entered positive territory (4 percent), but this development in not expected to persist, given the prospects of further excess supply under the joint action of the lower activity in the steel industry in China and the higher mining output in Brazil (the second largest producer after Australia).

The annual growth rate of the FAO aggregate index for agri-food commodities has recently returned to slightly positive levels (1.3 percent annual rate in April-June 2018). Behind this stood cereal prices (the current harvest is expected to be lower than that recorded in 2017, amid adverse weather conditions in several regions worldwide[25]) and the prices of dairy products (in the context of a supply shortage at international level, associated with the weak production in New Zealand). Nevertheless, the annual dynamics of prices of meat, sugar, vegetable oils, maize and sunflower seeds were in negative territory.

The annual unit value index of imports[26] remained above one in 2018 Q1 (100.8 percent), yet it decelerated from the 2017 average (102.9 percent). The significant annual appreciation of the euro versus the US dollar was an important contributor hereto, its influence being visible particularly in the case of fuels and petroleum products. Nonetheless, the UVI for this type of goods is highly likely to step up, given the recent trend in the crude oil price. At the same time, the UVI of base metals was further high (104.9 percent, only slightly below the 2017 average), mirroring the metal price movements on international markets over the past months.

As regards the goods holding a relevant share in the CPI basket, the UVIs of most food items continued to stand below one or to decelerate, whereas those of non-food items witnessed divergent developments: above one UVIs for footwear and transport means and annual declines in unit values of imports of wearing apparel and hygiene products respectively.

2.2. Producer prices on the domestic market

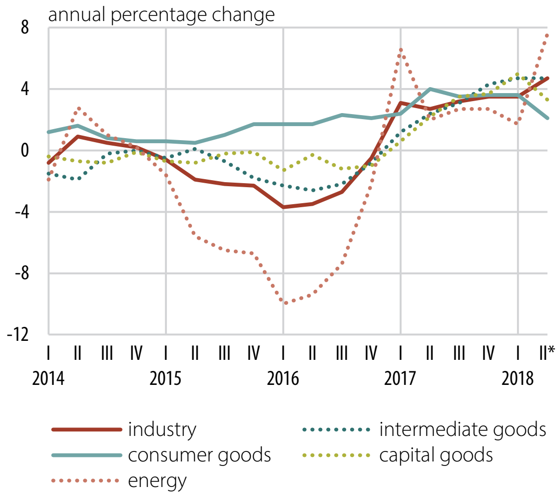
In April-May 2018, the annual dynamics of industrial producer prices on the domestic market accelerated to 4.7 percent, up 1.2 percentage points from 2018 Q1. This was solely ascribable to the trend in energy prices, following the increase in the Brent oil price and the hike in electricity prices on the domestic wholesale market (as a result of lower production; Chart 2.12).

The annual rate of change of producer prices for intermediate goods remained high, similar to that reported in 2018 Q1 (4.7 percent), under the impact of the advance in commodity prices during 2017, as well as of the rising energy costs (the production of intermediate goods having a higher energy intensity). Conversely, the annual pace of increase of producer prices for capital goods decelerated, in line with the slacker depreciation of the domestic currency against the euro, the prices of this category of goods being more sensitive to exchange rate movements. Turning to consumer goods, a slowing trend in the annual growth rate of their producer prices emerged, more pronounced for non-durables. The largest contribution came from food items,

25 However, it would be premature to expect large price increases, given the elevated stock levels.

26 Expressed in EUR.

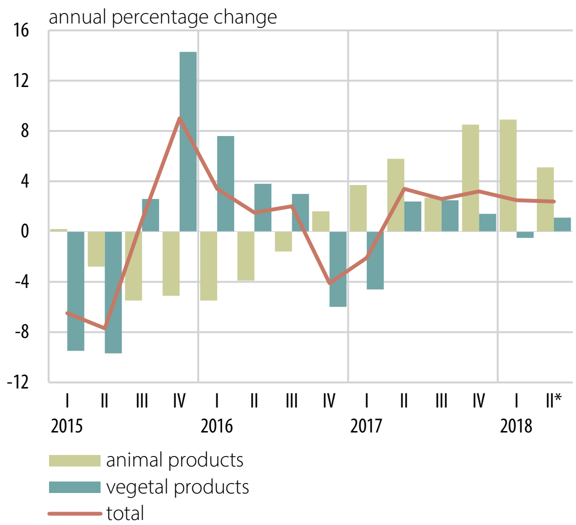
Chart 2.12. Industrial producer prices on the domestic market



*) Apr.-May 2018

Source: Eurostat

Chart 2.13. Agricultural producer prices



*) Apr.-May 2018

Source: NIS

the annual rate of change of their producer prices dropping to 1.5 percent (from approximately 3.8 percent in the last three quarters). Behind this fall stood the slowing dynamics of agri-food commodity prices seen on the international market starting in 2017 H2.

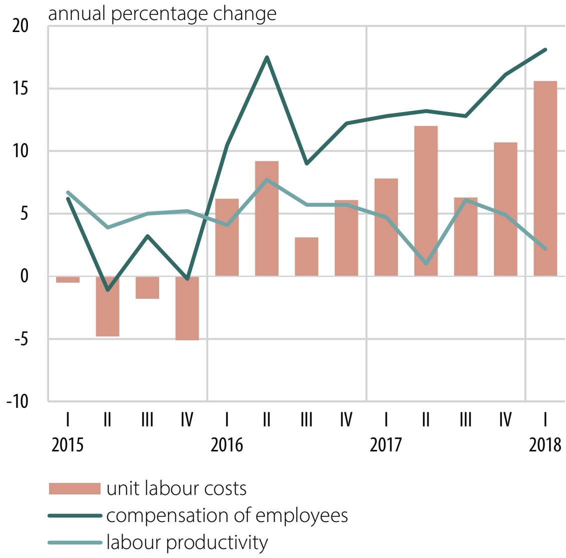
In April-May 2018, the annual growth rate of agricultural producer prices on the domestic market was relatively similar to that recorded in Q1 (2.4 percent; Chart 2.13). As regards the prices of vegetal products, their annual dynamics returned slightly to positive territory, but the main types of commodities followed mixed paths. Specifically, the price of wheat further posted positive annual rates of change, that of maize increased only marginally (+0.5 percent), after seven consecutive quarters of decline, while that of sunflower seeds was stuck to a downtrend in annual terms. The annual growth rate of prices of animal products slowed down by 3.7 percentage points, to 5.1 percent, on the back of mixed developments by component: the annual dynamics of pork prices entered negative territory, whereas those of the milk price and of beef and poultry prices accelerated.

Unit labour costs

In 2018 Q1, the annual pace of increase of unit labour costs economy-wide stepped up to 15.6 percent (+4.9 percentage points from the previous quarter), given that the loss of momentum in labour productivity overlapped with the pick-up in the compensation of employees (Chart 2.14). Thus, the high growth rate of unit labour costs – a constant feature of the economic environment as early as the beginning of 2017 – continued to be a source of inflationary pressures in the first part of 2018 as well. Even though the developments over the past quarters had an adverse effect on external competitiveness, in 2008-2017 the dynamics of unit labour costs in Romania (calculated at purchasing power parity) were more favourable than the average across EU Member States.

Moreover, January through May 2018, the annual rate of change of unit wage costs in industry moved up to 6.6 percent (+2.4 percentage points from 2017 Q4), solely against the background of the slacker rise in labour productivity. At sectoral level, unit wage costs accelerated particularly in manufacturing, whereas the restructuring and cost optimisation operations favoured their slower growth in mining and quarrying.

Chart 2.14. Unit labour costs



Source: Eurostat, NIS

A look at the breakdown by sub-sector shows that there is further a balance between wage costs and productivity in the manufacture of machinery and equipment, whose activity is supported by robust external demand, and in hydrocarbon processing, to a large extent on account of the base effect associated with the different scheduling of overhauls as compared with the previous year. Conversely, there are still considerable mismatches between wage and labour productivity dynamics in the light industry (which has been facing competitiveness losses for several years), wood and of furniture industries (where production was also hit by the substantial increase in the price of wood), as well as in the manufacture of building materials and of fabricated metal products (sub-sectors whose activity has been affected by the decline in construction).

3. Monetary policy and financial developments

1. Monetary policy

The NBR continued the adjustment of the monetary policy stance in 2018 Q2, tightening control over banking system liquidity starting mid-April and raising the policy rate by another 0.25 percentage points in May, before leaving it unchanged at 2.50 percent in July. Moreover, during this period, the central bank kept the minimum reserve requirement ratios on both leu- and foreign currency-denominated liabilities of credit institutions at 8 percent. The measures were aimed at bringing the annual inflation rate back into line with the flat target of 2.5 percent ±1 percentage point in a lasting manner, inter alia via the solid anchoring of inflation expectations over the longer time horizon.

In its May meeting, the Board of the National Bank of Romania decided to increase the monetary policy rate to 2.50 percent from 2.25 percent, as the annual inflation rate had continued to rise in March above the upper bound of the variation band of the flat target to reach, in line with expectations, 4.95 percent[27] and the new medium-term forecast broadly reconfirmed the coordinates of the previous projection[28], the projected path of the annual inflation rate being only slightly revised upwards in the short run and marginally downwards over the longer time horizon. Specifically, after a foreseeable renewed rise in April, the annual inflation rate was expected to stay around that high level for several months, before returning at end-2018 in the vicinity of the upper bound of the variation band of the target, reaching 3.6 percent (3.5 percent in the prior projection), and afterwards declining but also levelling off in the upper half of the band, to stand at 3 percent at the end of the forecast horizon (against the previously-projected level of 3.1 percent). The sizeable fluctuation in the likely evolution of inflation in 2018 and the slight upward adjustment of its pattern over the short term were attributable to the action of supply-side factors, namely to the large hikes recorded in recent months by all exogenous CPI components and to the associated base effects that were anticipated to become manifest starting with 2018 Q4[29].

At the same time, core inflation was expected to pick up further throughout the forecast horizon, albeit at a slower pace than in the previous projection, the annual adjusted

27 From 4.72 percent in February.

28 Published in the February 2018 *Inflation Report*.

29 The main influences came from the recent months' significant increases in electricity and natural gas prices, as well as from the faster pick-up in fuel prices, amid costlier oil and the reintroduction of the special excise duty on motor fuels; similar effects also stemmed from the rise in tobacco product prices, primarily due to the increase in the specific excise duty, and to a lower extent from higher prices for vegetables, fruit and eggs.

CORE2 inflation rate being anticipated to climb to 3.4 percent in December 2019 and then to the upper bound of the variation band of the target in March 2020. The relatively lower forecasted path of the annual adjusted CORE2 inflation rate was almost fully ascribable to the downward reassessment, both in retrospect and in the period ahead, of the estimated positive output gap, given the sizeable revision of the historical data series on economic growth. Although relatively diminished versus the previous forecast, inflationary pressures triggered by the cyclical position of the economy were expected to strengthen further in the first part of this year and then remain almost unchanged until towards mid-2019; furthermore, their abatement over the longer time horizon was anticipated to be slower, considering that the positive output gap was expected to re-embark on a narrowing trend not earlier than towards mid-2019[30], while its subsequent decrease was seen unfolding at a markedly slower pace. In addition, slightly stronger inflationary pressures – even than in the February projection – were anticipated to stem, primarily in the first part of the forecast horizon, from the steeper uptrend in short-term inflation expectations, whereas import price dynamics were seen exerting somewhat milder pressures initially, yet rising progressively.

The anticipated pattern of excess aggregate demand stemmed from the outlook for a slowdown in economic growth over the forecast horizon after the exceptional pace seen in 2017[31], the dynamics of economic activity being expected to remain above potential in 2018 and fall only slightly below potential next year. The outlook implied a relative abatement, also in relation to the previous forecast, of the expansionary nature of the fiscal policy in 2018 – which was then seen becoming quasi-neutral in 2019 –, as well as a notable moderation of the dynamics of households' real disposable income. It also assumed monetary conditions would become markedly less accommodative, and even turn marginally restrictive towards end-2019, while EU funds absorption would see a relative improvement. External assumptions were built on brighter prospects for economic growth in the euro area/EU and globally.

The likely steeper and relatively persistent climb of the annual inflation rate significantly above the upper bound of the variation band of the target, especially amid growing pressures from fundamentals, implied the risk of de-anchoring inflation expectations over the medium term and hence of generating considerable second-round effects, implicitly compounding the efforts and costs of bringing inflation back under control. In that context, the risk was heightened by the potentially faster-than-expected increase in some administered prices, but particularly in international oil prices.

According to subsequently-released statistical data, the annual inflation rate continued to rise above the upper bound of the variation band of the flat target in the first two months of Q2, climbing to 5.22 percent in April and to 5.41 percent in May – slightly above the forecasted level – under the influence of supply-side factors[32]. By contrast, the annual adjusted CORE2 inflation rate practically saw a halt in its upward

30 Namely with a delay of almost two quarters compared with the previous forecast.

31 6.9 percent.

32 Especially the significant, larger-than-anticipated hikes in fuel prices – amid the rise in the oil price and in the exchange rate of the leu against the US dollar – and in tobacco product prices.

trend in April to reach 3.09 percent[33], before going down to 2.95 percent in May, slightly below the forecast[34], also amid the likely levelling-off, at least for a while, of the significant inflationary pressures from fundamentals, attributable to the cyclical position of the economy; however, unit labour costs resumed a faster annual growth or reported further two-digit dynamics in the first four months of 2018, while short-term inflation expectations continued to see upward adjustments.

At the same time, economic expansion witnessed in 2018 Q1 a stronger-than-anticipated loss of momentum in annual terms – to 4.0 percent from 6.7 percent in 2017 Q4 –, given its stagnation in quarterly terms, implying a likely narrowing of excess aggregate demand contrary to expectations of a slight increase. Private consumption continued to be the main driver of GDP growth – making, however, a considerably lower contribution –, ahead of gross fixed capital formation, whose contribution remained positive, although decreasing markedly, while the negative contribution of net exports diminished; against this background, the current account deficit posted a slower pace of increase against the same year-earlier period, albeit remaining at an elevated level. Labour market tightening resumed[35], while the annual growth rate of average gross nominal wage earnings witnessed a renewed substantial step-up in March, owing inter alia to developments in the private sector, followed by only a slight moderation in April. Moreover, the annual dynamics of unit labour costs accelerated in Q1, both across the economy as a whole and across industry, where it continued to increase in April too, in the context of a slower labour productivity growth rate.

Monetary conditions were more visibly less accommodative in Q2, mainly due to the tightening of central bank control over banking system liquidity starting mid-April and the increase in the monetary policy rate by another 0.25 percentage points in May. Relevant interbank money market rates rose notably versus the previous quarter, climbing and consolidating significantly above the policy rate, while the EUR/RON exchange rate was further relatively stable, also amid the considerably larger differential between interest rates on the local market and those prevailing in Europe and regionally. In addition, the upward adjustment of interest rates on new time deposits witnessed a relative step-up in April and May, including when compared to that seen in lending rates on new business, implying a narrowing of the spread between them.

The annual growth rate of credit to the private sector gained traction April through May compared with the Q1 average. The stronger momentum was mainly attributable to the firming of the particularly high dynamics of leu-denominated loans to households, driven by consumer credit. Moreover, the annual pace of increase of domestic currency loans to non-financial corporations remained robust, albeit decelerating slightly against the Q1 average. The domestic currency component

33 From 3.05 percent in March.

34 The decrease in that interval overall was induced by the processed food and services components, more sensitive to the downward correction in the international prices of some agri-food products in that period and to the relative strengthening of the leu against the euro.

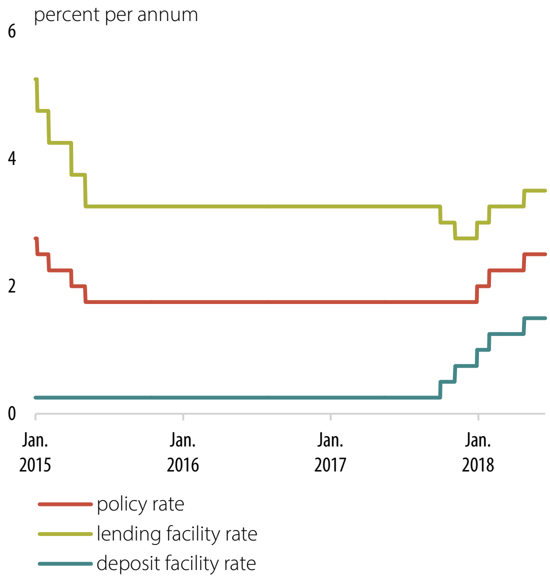
35 With the further decrease in the ILO unemployment rate to a 4.4 percent historical low in March – followed, nonetheless, by a rise to 4.6 percent in April – being accompanied in Q1 by the advance in the job vacancy rate after two consecutive quarters of decline.

further widened its share in private sector credit to 64.7 percent in May. However, the growth rate of broad money continued to diminish slightly, owing to the relative slowdown in money creation on account of EU funds, as well as to the lower dynamics of government spending on subsidies and social benefits.

The short-term projection updated in this context reconfirmed the outlook for the annual inflation rate to level off above the variation band of the target over the next months, in line with the latest medium-term forecast, according to which the annual inflation rate was expected to return in the vicinity of the upper bound of the band at end-2018, before re-entering the band and staying in its upper half during 2019. The slightly higher-than-previously forecasted values anticipated to be recorded by the annual inflation rate over the very near-term horizon were ascribable to supply-side factors, namely the relatively faster dynamics anticipated for VFE, fuel and tobacco product prices. Moreover, the new reassessments reconfirmed the prospects for a further deceleration in economic growth during Q2 and Q3, at a slightly faster pace than projected in May, as quarterly GDP dynamics were seen on the rise compared with Q1, but lower than those indicated by the latest medium-term forecast, implying lower values of the positive output gap during the first three quarters of 2018 and a possible change in its pattern against the May forecast.

The heightened uncertainties and risks associated in this context with the inflation outlook shown by the latest medium-term forecast stemmed primarily from developments in household confidence and the likely evolution of households' real disposable income, inter alia amid tight labour market conditions and rises in certain income categories, but also amid the potential impact exerted by the increase in fuel and some utility prices. Also relevant were the uncertainties surrounding EU funds absorption and the public policy outlook, with implications for the investment dynamics, as well as the new legislative initiatives regarding the banking sector, with a potentially adverse impact on lending, including on the non-financial corporations' segment. To these added the risks to global economic expansion stemming from the possible escalation of trade protectionism and of geopolitical tensions, as well as those induced by international financial market developments, marked in the recent period by the decline in global risk appetite, with major effects on emerging economies.

Chart 3.1. NBR rates



Against this background, ensuring adequate monetary conditions with a view to anchoring medium-term inflation expectations and keeping the annual inflation rate in line with the current medium-term forecast, while safeguarding financial stability, warranted the status quo of the monetary policy rate. Therefore, in its meeting of 4 July 2018, the NBR Board decided to keep unchanged the monetary policy rate at 2.50 percent, the deposit facility rate at 1.50 percent and the lending facility rate at 3.50 percent (Chart 3.1).

2. Financial markets and monetary developments

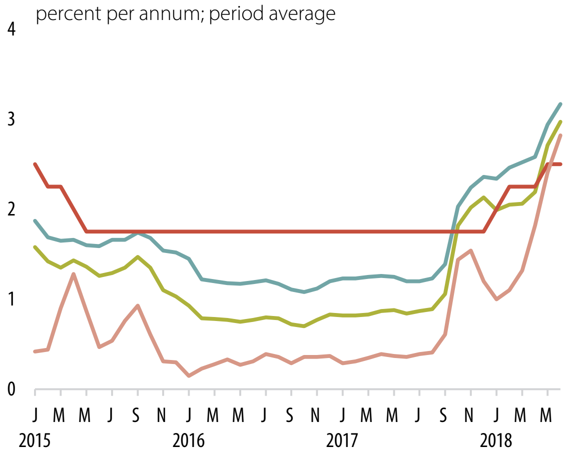
In 2018 Q2, longer-term interbank money market rates followed a steeper uptrend, while the EUR/RON exchange rate remained relatively stable. The annual growth rate of credit to the private sector slightly regained traction April through May 2018, whereas the dynamics of liquidity across the economy diminished further, amid the loss of momentum witnessed by disbursements to recipients of EU funds and by some types of budget expenditures.

2.1. Interest rates

After remaining in the vicinity of the deposit facility rate during the first weeks of Q2 as well, the daily average interbank money market rate saw its upward path steepen markedly starting mid-April, due to the tightening of the NBR control over banking system liquidity and the increase in the monetary policy rate by another 0.25 percentage points in May; its quarterly average (2.40 percent) stood 1.27 percentage points above the previous three months' reading.

Thus, the central bank launched in mid-April[36] and thereafter conducted on a weekly basis one-week deposit-taking operations via fixed-rate tenders with full allotment[37]. Their volume trended lower during the quarter[38], as the net liquidity surplus in the banking system – which had widened markedly January through March – contracted under the impact of autonomous factors, with liquidity conditions even turning restrictive towards the end of the period[39]. Against this background, ON rates rose at a quick pace starting mid-April, climbing somewhat abruptly in the vicinity of the monetary policy rate and increasing afterwards in tandem with the latter, before advancing and levelling off in the latter part of June close to the upper bound of the corridor defined by interest rates.

Chart 3.2. Policy rate and ROBOR rates



*) end of period

In turn, longer-term interbank money market rates (3M-12M ROBOR) followed a steep upward path, in response to the tightening of central bank control over banking system liquidity and to the policy rate hike, but also as a result of credit institutions'

36 For the first time in seven years.

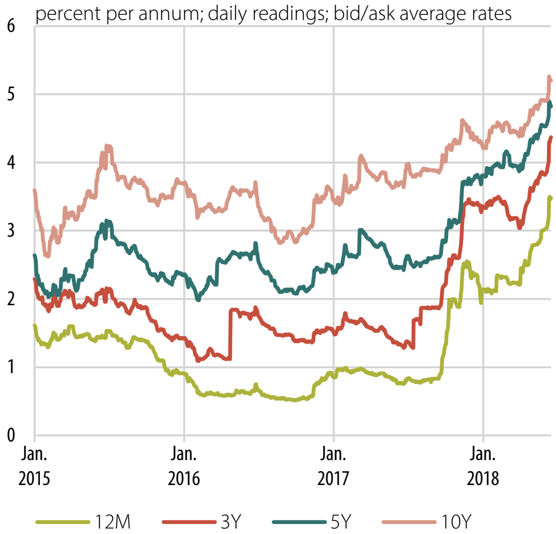
37 Under the circumstances, credit institutions' recourse to the NBR's deposit facility – via which the net liquidity surplus had previously been mopped up – became insignificant.

38 The daily average balance of 1W deposits taken shrank from around lei 17.7 billion in the latter half of April to lei 6.4 billion in May and to lei 2.1 billion in June.

39 With a view to covering their reserve shortfall, some credit institutions resorted during this period to the central bank's lending facility, for the first time in about four years.

expectations on the further adjustment of the monetary policy stance and, towards the end of the quarter, the change in liquidity conditions. Consequently, the average 3M ROBOR rate resumed its increase in June compared with the March reading (up 0.91 percentage points, to 2.97 percent), while the average 6M and 12M rates rose at a swifter pace, adding 0.68 percentage points (to 3.07 percent) and 0.65 percentage points (to 3.17 percent) respectively (Chart 3.2).

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



Developments on the government securities market reflected, in turn, the influences exerted by the NBR decisions and actions and by credit institutions' expectations on the further adjustment of the monetary policy stance, to which added the influences from the external environment, characterised during this period by mixed behaviours of long-term government bond yields both in developed economies and regionally[40]. Against this background, after the relative fluctuations seen in the first quarter, reference rates on the secondary market embarked as of mid-April and afterwards remained on an uptrend, steeper in the case of short maturities (Chart 3.3). Hence, their June averages[41] stood higher than in March by up to 1 percentage point for 6-month and 12-month maturities (to 2.96 percent and 3.10 percent respectively) and by 0.58 percentage points (to 4.61 percent) and 0.48 percentage points (to 4.98 percent) for 5-year and 10-year maturities respectively; in this context, the yield curve stuck to the overall flattening trend seen since 2017 Q4.

On the primary market[42], the average bid rates at the last auctions conducted in June increased more steeply versus end-2018 Q1 readings. The changes were somewhat more pronounced for short and medium maturities (0.70 percentage points for 1-year and 3-year maturities respectively, compared with up to about 0.6 percentage points in the case of 5-, 7- and 13-year residual maturities). Investor interest in government securities dwindled in April and remained low in May, but tended to recover in June, as also illustrated by developments in the average demand-to-supply ratio (which fell from 1.7 in March to 1.2 in April-May, before rising to 1.4 in June) and in the ratio of the accepted volume to the announced volume by the MPF at the securities auctions

40 Long-term government securities yields in advanced economies went up in the first half of Q2; in particular, that on the 10-year maturity in the US exceeded 3 percent for the first time in around four and a half years, amid higher inflation expectations, also against the backdrop of the further rise in international oil price. Subsequently, they posted a downward adjustment, more visibly in the euro area. Regional yields, additionally affected in the latter part of the quarter by the worsening investor sentiment towards markets in the region, witnessed mixed changes during the reported quarter; they rose in the Czech Republic and especially in Hungary and remained relatively unchanged in Poland.

41 Bid/ask average rates.

42 On 7 June, the MPF issued Eurobonds worth USD 1.2 billion, with a 30-year maturity, while also conducting an early redemption and partial exchange operation on Eurobonds worth around USD 250 million with a residual maturity of 4 years.

(decline in April and May, to 0.47, followed by a pick-up to 0.85 in June[43] – compared with 0.95 in March); moreover, the average maturity of securities issued shrank again, to 4.2 years from 4.8 years in 2018 Q1.

March through May 2018, credit institutions' average interest rates on non-bank clients' new loans and new time deposits went up (+0.45 percentage points, to 7.08 percent, and +0.53 percentage points, to 1.64 percent respectively), under the influence of the rise in relevant rates on the interbank money market (Chart 3.4). The increases became broad-based both from the perspective of the two customer sectors and across all types of loans and time deposits. Specifically, the average lending rate on new business to households added 0.37 percentage points, to 8.21 percent, driven by the rise in the average interest rates on new consumer and housing loans, but also by the larger weight of the former (bearing relatively higher interest rates) in the flow of credit to this segment. The average lending rate on new business to non-financial corporations posted a similar advance (to 5.39 percent), on account of both categories of loans (below and above EUR 1 million equivalent respectively). In turn, the average remuneration of new time deposits from non-financial corporations climbed 0.69 percentage points, to 1.86 percent, while that of similar deposits from households edged up more slowly (+0.13 percentage points, to 1.10 percent), further incorporating with a relative lag the impact of the increase in relevant interbank rates.

Chart 3.4. Bank rates

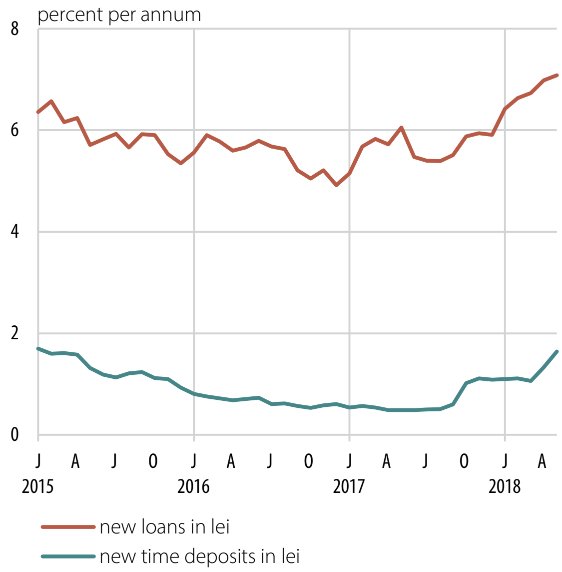
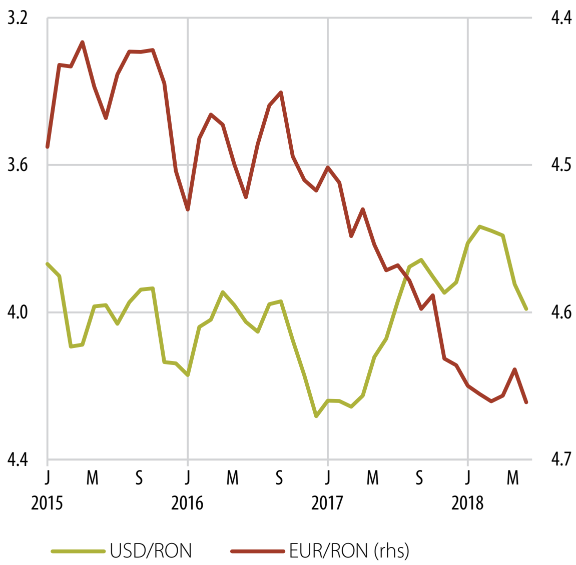


Chart 3.5. Nominal exchange rate



2.2. Exchange rate and capital flows

The EUR/RON exchange rate saw wider fluctuations in 2018 Q2, tending however to stick to the range of values recorded in the latter half of the previous quarter, under the prevailing impact exerted during this period by domestic factors (Chart 3.5).

The EUR/RON remained in April around the values at which it had stabilised in the latter part of Q1 – below the peak recorded at the beginning of the year –, but witnessed more visible fluctuations, before declining significantly in May. The behaviour

[43] In 2018 Q2, the MPF continued to partly/fully reject the bids submitted at government securities auctions held in April and May (four each) as well as in June (three).

of the currency pair reflected primarily the influence of the central bank's decisions and actions, including the tighter grip on banking system liquidity and the increase in the monetary policy rate by another 0.25 percentage points, conducive to the widening of the differential between local market interest rates and the prevailing rates in Europe and regionally, with an impact on the relative attractiveness of investments in domestic currency. Coupled with the implications of the further improvement in the dynamics of foreign trade and income flows in April, this masked the influences from the external environment, marked during this period by the weaker global appetite for risk – amid higher US Treasury yields[44] and a stronger US dollar versus the major currencies – which translated into sell-offs on some emerging markets and which overlapped in May a worsening of investor sentiment towards the region's financial markets, due to escalating political uncertainty in Italy. Under the circumstances, the exchange rates of the main currencies in the region embarked in mid-April and remained until the end of the quarter on a steep uptrend. External influences became prevalent on the domestic market as well in the first 10-day periods of June, when the EUR/RON exchange rate rose relatively sharply, peaking at a new historical high[45]. Afterwards, however, it tended to revert to slightly lower values.

Against this background, the interbank forex market turnover picked up compared with the previous quarter, while the widening of the quarterly market deficit was slightly slowed by residents' net supply of foreign currency returning to positive territory (Table 3.1).

During 2018 Q2, the leu saw its nominal value against the euro remain practically unchanged (strengthening 1.0 percent in real terms), despite the relative heightening of fluctuations during the reported period[46]; in relation to the US dollar, the domestic currency weakened by 5.4 percent in nominal terms and by 4.4 percent in real

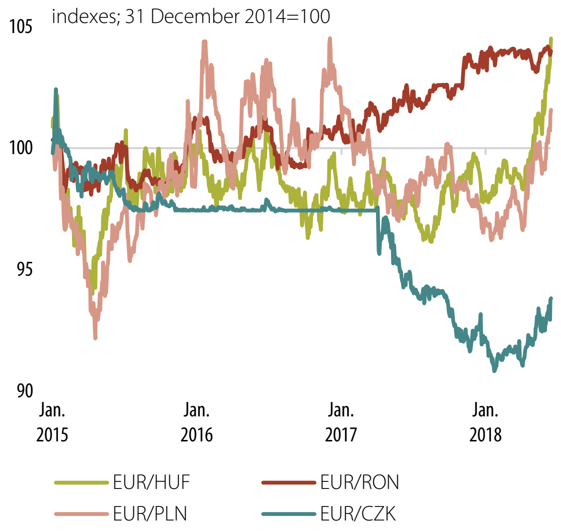
Table 3.1. Key financial account items

EUR million

	5 mos. 2017			5 mos. 2018		
	Net acquisition of financial assets*	Net incurrence of liabilities*	Net	Net acquisition of financial assets*	Net incurrence of liabilities*	Net
Financial account	4,067	4,962	-895	3,525	4,007	-482
Direct investment	261	1,716	-1,456	1,084	2,765	-1,681
Portfolio investments	328	2,229	-1,901	130	1,535	-1,406
Financial derivatives	x	x	-43	x	x	56
Other investment	1,835	1,016	819	2,926	-294	3,220
– currency and deposits	1,341	-315	1,656	1,957	-450	2,407
– loans	63	-66	130	56	-1,409	1,465
– other	431	1,397	-967	913	1,565	-652
NBR's reserve assets, net	1,686	0	1,686	-671	0	-671

*) "+" increase/"-" decrease

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



Source: ECB, NBR

44 Due to stronger expectations on further interest rate normalisation by the Fed, given the robust economic indicators in the US, as well as the increase in the international oil price.

45 4.6695 on 21 June.

46 In the same period, the Hungarian forint, the Polish złoty and the Czech koruna depreciated versus the euro by 3.3 percent, 2.2 percent and 1.4 percent respectively.

terms, given that the EUR/USD declined abruptly[47] starting mid-April, before fluctuating around these low values in the latter part of the quarter. Looking at the average annual exchange rate dynamics in 2018 Q2, the leu saw a narrowing of its nominal depreciation against the euro, but also a reduction to a larger extent in its appreciation versus the US dollar (Chart 3.6).

2.3. Money and credit

Money

April through May 2018, the growth rate of broad money (M3)[48] continued to decrease (11.2 percent versus 12.3 percent in 2018 Q1; Table 3.2)[49], amid the loss of momentum in disbursements to recipients of EU funds (including for agriculture)[50], as well as the lower dynamics of government spending on subsidies and social benefits.

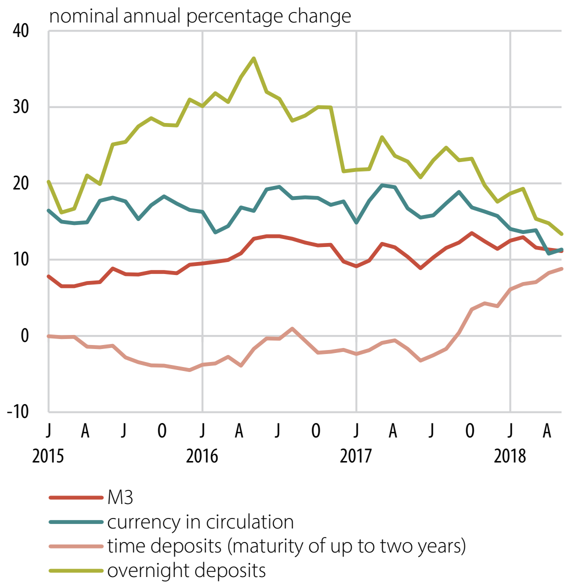
From the perspective of M3 components, the deceleration in its advance was brought about by the renewed slowdown in the dynamics of narrow money M1 (to a three and a half-year low in May), stemming from developments in ON deposits of both major customer categories – also influenced by the partial shift away from these deposits to time deposits – and from the evolution of currency in circulation. By contrast, the dynamics of time deposits with a maturity of up to two years continued to gain traction and hit a new post-November 2012 high. This was ascribable particularly to non-financial corporations' deposits (whose growth rate reached a post-October 2008 peak[51] in April) – more sensitive to changes in specific interest rates, which in turn replicated faster the movement in interbank rates. Household deposits also made a contribution, given the consolidation of their pace of increase – which had turned positive at end-Q1 for the first time in two and a half years –, but primarily on account of the foreign currency component. Against this

Table 3.2. Annual growth rates of M3 and its components

nominal percentage change

	2017			2018		
	II	III	IV	I	Apr.	May
	quarterly average growth					
M3	10.3	11.3	12.4	12.3	11.3	11.1
M1	20.8	21.6	19.0	16.6	13.5	12.7
Currency in circulation	17.2	17.3	16.3	13.8	10.8	11.3
Overnight deposits	22.4	23.6	20.2	17.8	14.8	13.3
Time deposits (maturity of up to two years)	-1.9	-1.3	3.9	6.6	8.2	8.8

Chart 3.7. Main broad money components



47 In turn, the gold price per ounce in USD fell in Q2, returning to the values recorded at the beginning of December 2017.

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

49 In real terms, the slowdown in the average annual dynamics of M3 continued to be more pronounced (from 7.3 percent in 2018 Q1 to 5.6 percent April through May).

50 According to the monthly data on general government budget execution, along with those regarding disbursements from EU funds for agriculture (source: the website of the Agency for Rural Investment Financing).

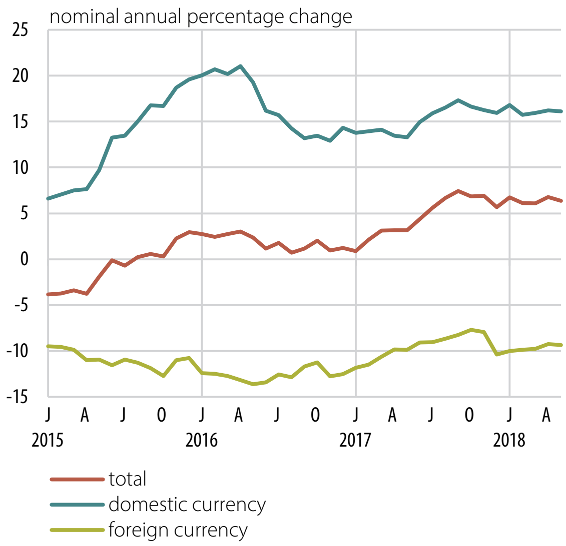
51 A similar value was recorded in February 2018 as well.

backdrop, the share of M1 in broad money decreased further, yet remained large from a historical context, i.e. 59.3 percent (Chart 3.7).

Overall, M3 deposits from non-financial corporations further witnessed, however, a loss of momentum (to a three-year low in May) – amid the reduction in the annual rate of change of payments for agriculture and of some types of budget expenses – thereby contributing to the slowdown in the M3 advance. A similar influence also had the decline in the growth rate of total household deposits, which was due to the joint impact exerted by the slower dynamics of budget payments in the form of social benefits, by portfolio shifts towards other categories of financial instruments (government securities), as well as by the step-up in motorcar purchases[52] more than offsetting the effects of the renewed pick-up in the dynamics of wage earnings.

From the perspective of M3 counterparts, the deceleration in broad money dynamics was brought about, in the reported period as a whole, by the slower rate of change of credit to the public sector and the faster growth rate of credit institutions' long-term financial liabilities[53]; an opposite, albeit weaker influence came from the renewed pick-up in the dynamics of private sector credit and the steeper decline in central government deposits.

Chart 3.8. Credit to the private sector by currency



Credit to the private sector

April through May 2018, the dynamics of private sector credit slightly regained traction (6.6 percent versus 6.3 percent in 2018 Q1; Chart 3.8)[54], mainly following the faster rise in new loans, but also amid the reduction in net operations to remove loans from banks' balance sheets. The leu component stuck to a high growth rate, while the foreign currency component (expressed in EUR) saw only a slight moderation in its annual rate of decline[55]; against this background, the share of leu-denominated loans in private sector credit continued to widen, reaching a new post-November 1996 high of 64.7 percent in May.

The breakdown by institutional sector points to further opposing developments (Chart 3.9). Specifically, the pace of increase of household credit stepped up during this period as well, peaking at a new high of the past almost nine years. The stronger momentum was attributable

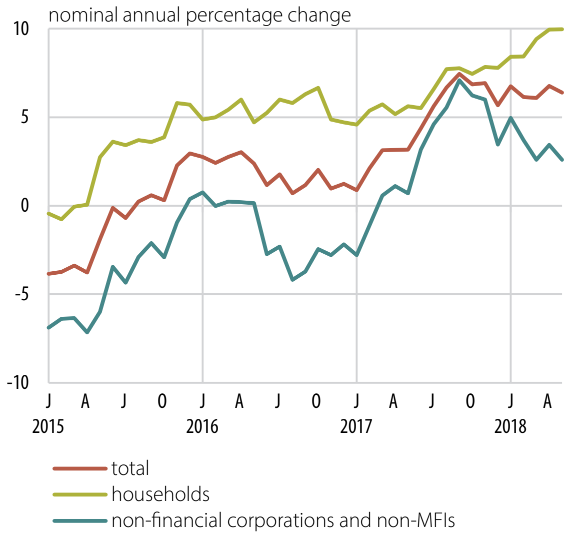
52 The annual pace of increase of automotive trade turnover posted a steep acceleration in April 2018, mainly on account of motorcar sales, markedly exceeding the averages recorded in the previous four quarters. This was due to the launch in the latter part of March – two months earlier than last year – of a new edition of the car fleet renewal government programme.

53 Capital accounts included.

54 In real terms, the annual dynamics of credit to the private sector remained on a downward path (1.2 percent on average, from 1.6 percent in 2018 Q1).

55 Expressed in lei, the dynamics of foreign currency loans became slightly more negative, owing to the statistical effect of the annual change in the EUR/RON exchange rate.

Chart 3.9. Credit to the private sector by institutional sector



to leu-denominated consumer credit and other loans, reflecting the influence of the increase in new business (whose volume reached a historical high in May), but also the statistical effect of including a new credit institution in the aggregate monetary balance sheet[56]; the dynamics of housing loans in domestic currency continued to decelerate, but remained robust, given the renewed rise in the flow of credit under the "First Home" programme[57].

By contrast, the annual growth rate of credit to non-financial corporations slowed down further during the period overall[58], as the slight recovery seen in April was more than offset by the new decline recorded in May. The fluctuations owed primarily to the foreign currency component, whose annual rate of decline moderated in April, only to become more negative the following month; conversely, the dynamics of leu-denominated credit regained traction in May, for the first time in four months, amid the rebound in the flow of loans.

56 March 2018 saw the start of operations on the local market of BNP Paribas Personal Finance Paris, Bucharest branch, following its merger with Cetelem IFN.

57 Based on CCR data.

58 Expressed in real terms, its annual dynamics fell deeper into negative territory.

4. Inflation outlook

The annual CPI inflation rate is projected to reach 3.5 percent at end-2018 and 2.7 percent at end-2019, both levels standing below those shown in the May 2018 *Inflation Report* by 0.1 percentage points and 0.3 percentage points, respectively. At the projection horizon, i.e. mid-2020, the indicator is anticipated to come in at 2.8 percent. From the high levels recorded in 2018 Q2, the annual inflation rate is expected to slow down, more markedly during 2018 Q4, when it is seen benefiting from the fading-out of the effects of unfavourable supply-side shocks in the latter half of 2017. The exogenous components of the consumer basket will post a significant decline in their contributions to inflation rate over most of the forecast interval, causing the annual CPI inflation rate to re-enter the variation band of the target at the beginning of 2019 and stay inside the band until the projection horizon. The annual core inflation rate is foreseen to rise gradually in the course of 2019, mainly as a result of the anticipated pick-up in prices of imported goods under the impact of progressive convergence of external inflation towards the 2 percent benchmark. Thereafter, from end-2019 to the projection horizon, the annual adjusted CORE2 inflation rate is seen stabilising at values around 3.2 percent. External inflationary pressures will be countered at this horizon by the gradual decline in excess demand, amid a reconfiguration to quasi-neutral levels of both real broad monetary conditions and the discretionary fiscal policy stance, entailing also a favourable impact on inflation expectations. The balance of risks to the annual inflation rate projection is assessed as being tilted to the upside compared to its path in the baseline scenario, with risks stemming from both domestic and external sources.

1. Baseline scenario

1.1. External assumptions

Over the projection interval, external demand, assessed based on the effective EU GDP (EU-28 excluding Romania), is expected to slow down compared to the previous year, with the projected figures being similar to those foreseen in the previous *Inflation Report* and running above 2 percent (Table 4.1). It will further benefit from the ECB's accommodative monetary policy[59], the improvements in

[59] In its meeting of 14 June 2018, the ECB's Governing Council decided to continue to make net asset purchases at the monthly pace of EUR 30 billion until the end of September 2018. Furthermore, subject to incoming data on the medium-term inflation outlook, it was decided that the monthly pace of the net asset purchases would be adjusted to EUR 15 billion in 2018 Q4 and that net purchases would then end. At the same time, the key ECB interest rates were left unchanged at their present levels at least through the summer of 2019 and in any case for as long as necessary to ensure that the performance of inflation stays in line with its currently-expected sustained path.

Table 4.1. Expectations on the developments in external variables

annual averages

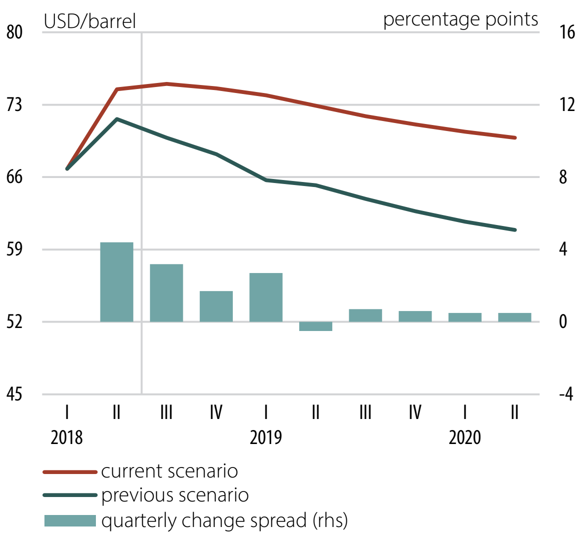
	2018	2019
Effective EU economic growth (%)	2.5	2.2
Annual inflation rate in the euro area (%)	1.7	1.6
Annual inflation rate in the euro area, excluding energy (%)	1.3	1.7
Annual CPI inflation rate in the USA (%)	2.5	2.1
3M EURIBOR (% per annum)	-0.3	-0.2
USD/EUR exchange rate	1.19	1.20
Brent oil price (USD/barrel)	72.7	72.5

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

labour market conditions, and elevated levels of business and consumer confidence, as reflected by the ESI. The pick-up in global economic growth, fuelled mainly by the advanced economies, will further bolster exports, despite the euro following a strengthening trend versus the currencies of the euro area's major trading partners. The gap of the effective EU GDP is expected to post positive and rising levels over the forecast interval, mirroring the ongoing cyclical advance of trading partners, with a stimulative impact on economic activity in Romania.

The average annual HICP inflation rate in the euro area is forecasted to stand at 1.7 percent in 2018 (an upward revision of 0.2 percentage points from the May 2018 *Inflation Report*) and 1.6 percent in 2019 (similarly to the previous projection), running further below the ECB's 2 percent benchmark for price stability. Against the backdrop of the emerging labour market tightening, because of growing supply constraints in some euro area countries impacting the anticipated pay rises, the average annual HICP inflation rate excluding energy in the euro area is projected to remain on an upward path during the forecast interval, standing at 1.3 percent and 1.7 percent in 2018 and 2019 respectively, following a marginal upward revision of 0.1 percentage points for both years. Annual inflation rate in the USA is foreseen to run higher than that in the euro area and above the 2 percent benchmark.

Chart 4.1. Brent oil price scenario



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

Against the background of the ECB's accommodative monetary policy, the nominal 3M EURIBOR rate is expected to further register negative values throughout the projection interval.

The euro is set to strengthen versus the US dollar over the forecast interval, after having softened in recent months, before reaching USD 1.23 per euro at the projection horizon, amid a more upbeat investor sentiment towards the euro area and the uncertainty stemming from fiscal and trade policies pursued by the US Administration.

The scenario for the developments in the Brent oil price is based on futures prices and foresees a downward course during the projection interval, after it has risen significantly of late, to reach USD 69.8 per barrel at the forecast horizon

(Chart 4.1). The expected dynamics of the oil price are further characterised by high uncertainty, as mirrored by the revised trajectories of futures prices in the successive projection rounds[60].

1.2. Inflation outlook

The baseline scenario of the macroeconomic projection places the annual CPI inflation rate at 3.5 percent at end-2018 and 2.7 percent at end-2019 respectively, both values being below those in the May 2018 *Inflation Report* by 0.1 percentage points and 0.3 percentage points, respectively. Subsequently, until the projection horizon, i.e. mid-2020, it is expected to stabilise at 2.8 percent (Table 4.2, Chart 4.2). From the 5.4 percent reading at the end of 2018 Q2, seen as the highest for this year, the annual inflation rate is expected to slow down, more markedly during 2018 Q4. The evolution appears set to occur mainly amid the slower dynamics of prices of some exogenous components in prior quarters, mainly prices of fuels, tobacco products and administered prices, and, to a much lesser extent, following uneven annual dynamics of core inflation. The slowdown in the annual headline inflation rate is driven, in the latter part of this year, by projected monthly inflation rates below those seen in 2017, which were affected by the hike in the excise duty on fuels in September and October 2017, higher electricity prices in October 2017, the upturn in the oil price in the latter part of last year, as well as by some atypical increases in processed food prices last autumn. In the absence of new expected supply-side shocks, the exogenous components of the consumer basket will have significantly smaller contributions to inflation, causing the annual CPI inflation rate to reach the upper bound of the variation band of the target at end-2018 and then stay inside the upper half of the band starting as early as 2019, tending to slow to 2.8 percent at the projection horizon. The annual core inflation rate is seen gathering momentum during 2019, before stabilising at values around 3.2 percent starting in the latter half of 2019.

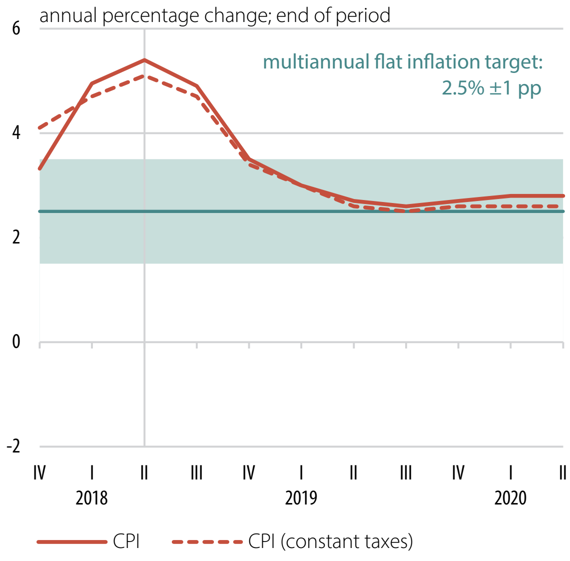
Table 4.2. The annual inflation rate in the baseline scenario

annual percentage change; end of period

	2018		2019				2020	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Central target	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
CPI projection	4.9	3.5	3.0	2.7	2.6	2.7	2.8	2.8
CPI projection*	4.7	3.4	3.0	2.6	2.5	2.6	2.6	2.6

*) calculated at constant taxes

Chart 4.2. Inflation forecast



Source: NIS, NBR projection

Compared to the previous *Inflation Report*, the projected annual CPI inflation rate was revised downwards due to lower contributions from the adjusted CORE2 index and administered prices. These contributions were eroded by higher ones from fuel prices

60 For further details, see Box 2 in Section 1.4. Risks associated with the projection.

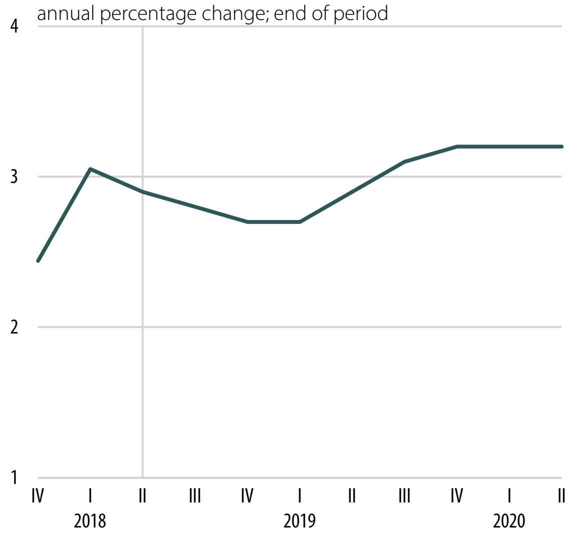
and tobacco product prices, yet only for this year, while for 2019 the contributions from other consumer basket components remained unchanged.

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

annual percentage change; end of period

	2018		2019				2020	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Adjusted CORE2	2.8	2.7	2.7	2.9	3.1	3.2	3.2	3.2

Chart 4.3. Annual adjusted CORE2 inflation



Source: NIS, NBR projection

The annual adjusted CORE2 inflation rate is expected to decrease somewhat over the next quarters, from 2.86 percent in June 2018 to 2.7 percent at the end of both 2018 and 2019 Q1 (Table 4.3, Chart 4.3). This will occur particularly amid the fading-out of pressures stemming from prices of some agri-food commodities on processed food items in 2017 H2, as well as following the softening of inflationary pressures exerted via aggregate demand in the first part of 2018, with persistent effects on the level of this indicator. Disinflationary pressures of these factors will be dampened by rising pressures from economic agents' expectations on price developments this year – especially as many supply-side shocks overlapped in the past year – and following the gradual increase during 2018 of the output gap, which is seen persisting into 2019 Q1. From the end of 2019 Q1 until year-end the annual adjusted CORE2 inflation rate is projected to follow a slightly upward trend, reaching 3.2 percent, before stabilising at that level until the projection horizon, i.e. mid-2020. The evolution is ascribed largely to the foreseen dynamics of prices of imported goods, under the impact of gradual convergence of external inflation towards the 2 percent benchmark. In the latter part of the projection interval, amid a reconfiguration to quasi-neutral values of both real broad monetary conditions and the discretionary fiscal policy stance, excess demand is expected to lower progressively, yet at a slower pace than previously projected. Against this backdrop, inflation expectations will abate, but will only drop to values in the vicinity of 3 percent at the projection horizon.

Compared to the May 2018 *Inflation Report*, the annual adjusted CORE2 inflation rate was revised downwards by 0.5 percentage points at end-2018 and by 0.2 percentage points at end-2019, amid lower inflationary pressures exerted via excess demand[61]. However, the output gap appears set to close more slowly than previously projected, putting further pressure on the adjusted CORE2 index. Stronger inflationary influences are anticipated to stem from the projected dynamics of prices of imported goods[62] and economic agents' inflation expectations.

61 For details, see Section 1.3. Demand pressures in the current period and over the projection interval.

62 The revision followed a higher projected euro area annual HICP inflation rate excluding energy, as this measure is employed in constructing the series of imported inflation rate used in the model for analysis and medium-term forecasting (MAMTF).

Table 4.4. Components' contribution to annual inflation rate*

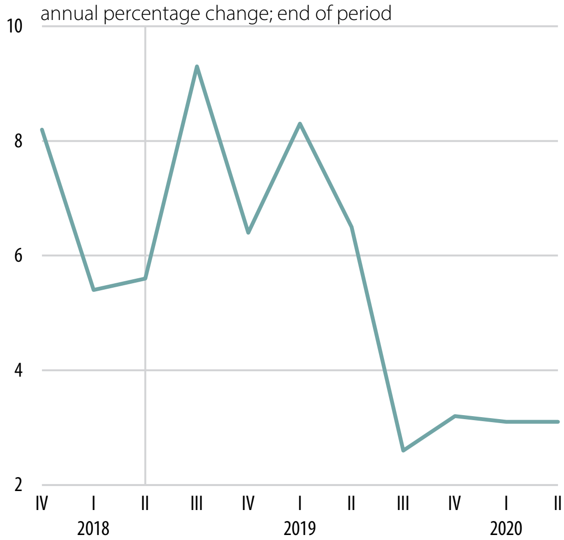
percentage points

	2018	2019
Administered prices	0.7	0.2
Fuels	0.5	0.1
VFE prices	0.4	0.2
Adjusted CORE2	1.6	1.9
Tobacco and alcoholic beverages	0.3	0.2

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

The cumulative contribution of inflation components beyond the scope of monetary policy, namely administered prices, volatile food (VFE) prices, fuel prices and tobacco product and alcoholic beverage prices, to the annual CPI inflation rate is seen at 1.9 percentage points at end-2018 (a value revised upwards by 0.3 percentage points versus the previous *Inflation Report*) and at 0.7 percentage points at the end of next year (a value revised downwards by 0.2 percentage points) (Table 4.4).

Chart 4.4. VFE prices annual inflation



Source: NIS, NBR projection

The annual dynamics of volatile food (VFE) prices are projected at 6.4 percent at the end of this year and 3.2 percent at the end of next year; only the 2018 value was revised slightly upwards by 0.4 percentage points compared to the prior *Report*. Their path in the first part of the projection interval is affected by the gradual fading-out of the negative supply-side shock associated with the shortage of eggs at European level late last year. The assumption regarding close-to-normal agricultural years for 2018 and 2019, as shown in the previous round, remains valid (Chart 4.4).

According to the exogenous scenario for administered prices, their growth rate is anticipated at 3.9 percent and 1.1 percent at the end of 2018 and 2019, respectively, both values being lower than those in the previous *Report* by 0.2 percentage points and 0.9 percentage points, respectively (Chart 4.5). For this year, the downward revision is largely based on a reduction in electricity prices in July, which was only partially counterbalanced by the increase in natural gas prices[63], while for next year the indicator was reassessed amid the recent legislation on the standard VAT rate cut applicable to sewerage (from 19 percent to 9 percent) and heating (from 19 percent to 5 percent).

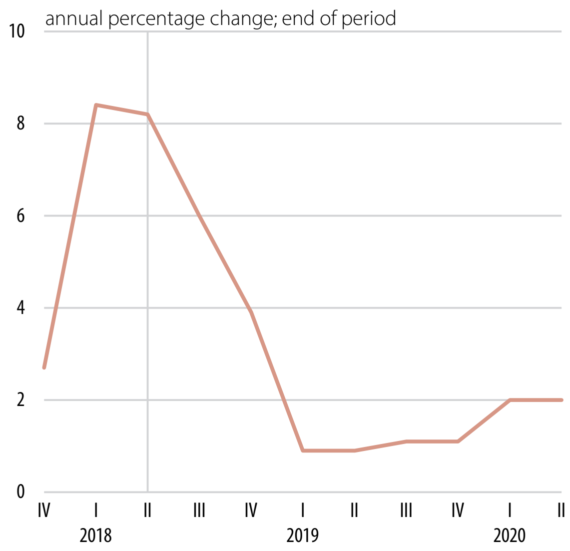
The annual dynamics of fuel prices are projected at 6.8 percent at end-2018 and 1.5 percent at end-2019 (Chart 4.6). The projected path in these prices is marked significantly by the fading-out of the statistical effects associated with the two-step increase in excise duties on motor fuel in 2017, as well as with atypical rises in the non-motor fuels component at end-2017[64]. For 2018, the annual growth rate is 2.7 percentage points above the previously projected one, chiefly as a result of a

63 The drop in electricity prices following the reduction in the maximum prices for universal service to be implemented by every supplier of last resort was partially counterbalanced by the increase in natural gas prices. For further details, see the Romanian Energy Regulatory Authority press releases of 29 June and 19 July 2018 available at: http://www.anre.ro/ro/presa/comunicate/comunicat-29-06-2018-preturi-furnizare-ee-regim-serviciu-universal and http://www.anre.ro/ro/presa/comunicate/informare-de-presa-19-07-2018-preturi-gaze-naturale-clienti-casnici.

64 Amid the reduction in the supply of timber offered for auction by the authorities.

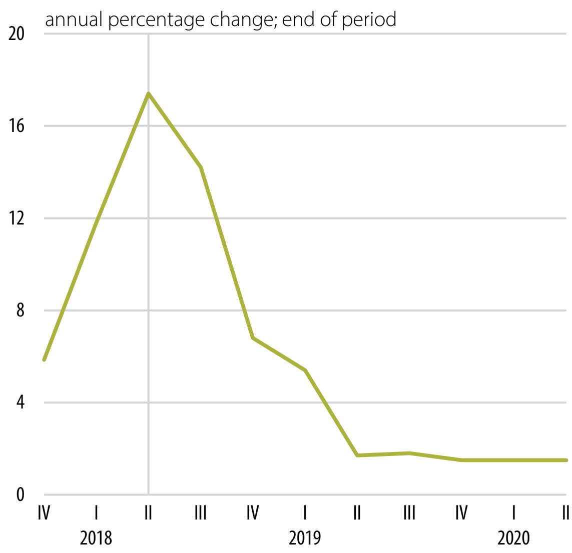
higher annual oil price inflation and a depreciation of the euro versus the US dollar, compared with an appreciation anticipated in the preceding round, with an impact on the leu exchange rate against the US dollar and, implicitly, on the leu-denominated prices of these goods. The upward adjustment of inflation expectations acts in the same direction. For next year, the upward revision by 0.3 percentage points is primarily associated with forecasting a less pronounced negative annual dynamics of the oil price than previously projected at this horizon.

Chart 4.5. Administered prices annual inflation



Source: NIS, NBR projection

Chart 4.6. Fuel prices annual inflation



Source: NIS, NBR projection

The expected path of tobacco product and alcoholic beverage prices is shaped by the legislation setting the levels of excise duties on such goods and foresees rises of 3.4 percent at the end of this year and 3.0 percent at the end of next year. For this year, the upward revision by 0.8 percentage points resulting from manufacturers upping prices in April and May above the previously anticipated levels, mainly on the back of taxation changes. For 2019, the annual dynamics of this consumer basket component was revised only marginally downwards.

1.3. Demand pressures in the current period and over the projection interval[65]

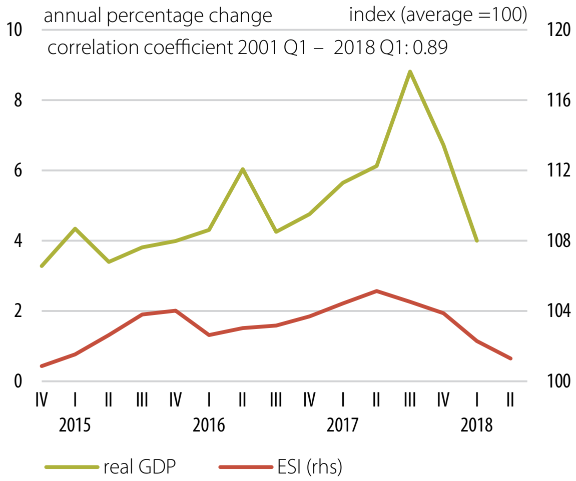
Output gap

In 2018 Q1, real GDP came to a near standstill, its quarterly dynamics being of 0.1 percent, which reflected in an annual deceleration down to 4 percent[66], a value that implies a return of economic activity towards the potential growth rate. This slowdown occurred, inter alia, amid the evolution of economic confidence indicators

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

66 NIS Press Release No. 172 of 6 July 2018. The annual dynamics are calculated based on gross data series.

Chart 4.7. Economic sentiment indicator* and economic growth



*) seasonally adjusted data

Source: NIS, EC-DG ECFIN

(mainly on account of consumers' and industrial managers' perception). In this quarter, both final consumption and gross fixed capital formation (GFCF) posted declines compared to 2017 Q4, while the negative contribution of net exports became almost nil. For the next quarters, a series of signals coming from monthly indicators point mostly to a gradual rebound in GDP dynamics. Among these, the recovery of industrial production and of retail trade stood out, having stimulative effects on domestic demand, while the economic sentiment indicator remained low (Chart 4.7). Quarterly GDP growth is foreseen to be driven by an upturn in domestic demand, but the dynamics are expected to be considerably slower compared to the previous year, while net exports of goods and services are projected to make a slightly negative contribution.

The dynamics of potential GDP and actual GDP draw similar trajectories over the projection interval, reflecting a loss of momentum anticipated for the current year, followed by a rebound in 2019. The 2018 deceleration in potential GDP growth reflects the smaller contribution of TFP, in parallel with a modest evolution of GFCF. Labour is seen to further have a slightly positive contribution due to the rise in employment, given the anticipated increase in activity rate (along with the pick-up in economic activity) and the still low unemployment rate; these developments are only partly offset by the downward trend in working-age population. Over the forecast interval, the contribution of TFP[67] trend captures the anticipated additional efficiency gains from the use of production factors – labour and capital –, reflecting new investment in equipment (which is usually high-tech and requires adapting workforce skills), as well as the expected improvement in the absorption of European structural and investment funds. Persistent adverse influences can be attributed to the modest allocation of resources for innovation, to shortcomings in business environment regulation[68] and to the poor quality of infrastructure, which affects labour mobility and decisions on the location of new productive capacities. Compared to the previous forecast round, potential GDP dynamics were reassessed downwards especially for the current year and to a lesser extent for 2019, given the pronounced deceleration in GDP growth in 2018 Q1, and also the unfavourable developments in investment, with a dampening impact on the corresponding forecasts.

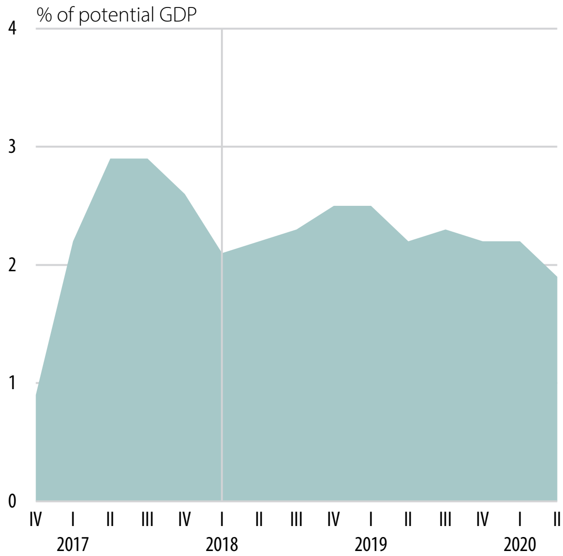
As compared to the previous *Inflation Report*, the domestic output gap was subject to a new downward reassessment due to: (i) the lower-than-expected developments

[67] Additional evidence regarding TFP developments is brought by: (i) *European Innovation Scoreboard* (2018, EC), where several factors unfavourable to innovation are underlined, such as the low level of private investment or the collaboration relations between innovative companies and the other economic agents or (ii) *Ease of Doing Business* (2018, WB), which shows the deterioration of Romania's position, despite an improved overall score (+0.17, up to 72.87).

[68] According to *Ease of Doing Business* (2018, WB), Romania lacks in the following main areas: management of building permits and electricity contracts, insolvency proceedings and protection of minority shareholders.

in economic activity in 2018 Q1, overlapping the downward revision of recent historical data series for seasonally-adjusted real GDP, with a lingering impact on the future path of the variable and, to a lesser extent, to (ii) the updating of information comprised in the set of explanatory variables.

Chart 4.8. Output gap



Source: NBR assessments based on data provided by the NIS

The output gap (Chart 4.8) is anticipated to gradually widen throughout 2018 and 2019 Q1, on the back of the external demand gap advancing into positive territory. Subsequently, over the remaining part of the forecast interval, excess demand will gradually decrease under the impact of the accommodative nature of real broad monetary conditions abating to close-to-neutral values in 2019, but also as a result of the fading-out of fiscal stimuli associated with the discretionary component of fiscal policy[69]. From the perspective of aggregate demand components, the output gap path is projected to be shaped by the developments in the gap of actual individual consumption of households and, to a lesser degree, by those in the GFCF gap. In turn, the gaps of exports and imports of goods and services are assessed at positive values, yet further having a negative net contribution to the output gap. The assessment of the output gap and of the gaps of GDP components is surrounded by a degree of uncertainty mirroring, inter alia, the frequency and size of the revisions of historical series as well as their relatively high volatility.

The baseline scenario of the projection foresees a notable slowdown in economic growth in 2018, marked by the unfavourable developments in the first quarter, inter alia amid the drop in economic agents' confidence. In 2019, GDP growth is anticipated to pick up slightly and stabilise near the potential one. Over the projection interval, the GDP dynamics reflect the lower traction of domestic demand, mainly driven by developments in consumption which is seen to be affected by the sharp slowdown in real disposable income growth, also on the back of an expected lower fiscal stimulus. The contribution of net exports is anticipated to stand at almost neutral values, following the persistence of a slightly stronger growth rate of exports of goods and services compared to that of imports thereof.

Aggregate demand components

The actual final consumption posted brisk quarterly increases during the first three quarters of 2017, followed by decreases in 2017 Q4 and 2018 Q1[70] (-2.0 percent and -0.4 percent, respectively). For the next quarters, the quarterly dynamics of actual final consumption are anticipated to return to positive territory, albeit at a significantly slower pace than in the previous year. During the reviewed period, the increase in

[69] Approximated based on the fiscal impulse.

[70] For details on drivers of GDP components in 2018 Q1, see Chapter 2, Section 1. Demand and supply.

real net wage and the expected improvement in consumer confidence are the main determinants of the rebound in domestic consumption, both having stimulative effects on retail trade.

The actual final consumption remains the key driver of economic growth over the projection interval, despite its declining contribution. The developments in this component are in line with the dynamics of real disposable income, which are forecasted to gradually decelerate in the following years. Its path is attributable to the wage component, strongly affected by the slowdown in net wage increase in nominal terms, as well as by the inflation rate outlook for the current year. Although losing momentum as compared to 2017, the nominal net wage growth will remain robust amid the further relatively elevated level of labour market tightness.

After the GFCF decrease in 2018 Q1 (-1.2 percent), the dynamics of this component are estimated to reach positive, albeit low values during the next quarters, as signals coming from high-frequency indicators are mixed. Specifically, the absorption of European structural and investment funds, which is anticipated to pick up in the following period, might finance equipment purchase and further implementation of infrastructure projects, while the abatement in consumer uncertainty is expected to support the demand for residential buildings, although its level will remain low compared to the previous year.

Although the GFCF is foreseen to grow over the forecast interval, its dynamics in 2018 and 2019 will be slower than in 2017. The GFCF growth will benefit from the gradual rise in foreign direct investment inflows – underpinned by the prospects for economic growth in Romania and in the main countries of origin –, as well as from a further improved absorption of structural and investment funds[71], to which add the resources mobilised through the European Fund for Strategic Investments (EFSI). GFCF is further impacted by a number of factors which increase the uncertainty surrounding the forecast of this component, such as the limited predictability of the legislative framework, the discretionary stance of authorities regarding investment expenditure, the lack or poor quality of transport infrastructure, as well as the skill mismatch between available workforce and the needs of labour market.

Under the impact of robust external demand, exports of goods and services are expected to further advance, following the 3.3 percent rise in Q1, albeit at a slower pace compared to previous years. On the one hand, the growth of this component will be supported by expected favourable developments in the economies of main trading partners and also by the sales of sectors integrated in global value added chains (such as the manufacture of transport equipment and related sub-sectors). On the other hand, the deceleration in annual dynamics takes into account the deterioration in price competitiveness of local products, amid the brisk increase in unit labour costs, visible even since 2017, which will also affect production costs and,

71 Taking into consideration the frequent legislative changes which enable a smoother implementation of projects included in operational programmes, the framework agreement worth EUR 1 billion, signed between Romania and the European Investment Bank for co-financing priority transport projects, as well as the completion by March 2019 of phased projects under the current financial allocation (not completed during the previous financial framework and cumulating approximately EUR 4 billion).

implicitly, consumer prices. The slowdown in the growth rate of exports of goods and services is also determined by a series of dragging structural features of the economy, such as the lack or poor quality of infrastructure or the structure of value added created by production processes, amid the still low level of innovation.

Even though domestic absorption lost significant momentum during the first part of the current year, imports of goods and services continued to rise in 2018 Q1 (2.2 percent versus 2017 Q4), partly on the back of robust developments in exports. Over the projection interval, the growth rate of imports of goods and services is forecasted to gradually decline, in line with the developments in domestic absorption. At the same time, the rise in imports is anticipated to lag marginally behind that of exports and hence net exports will have a relatively neutral contribution to GDP growth in both 2018 and 2019.

Over the forecast interval, the current account deficit is expected to widen further, but at a slower pace – amid a deceleration in domestic absorption –, posting values slightly below 4 percent of GDP in the medium term. The current account deficit financing is anticipated to be fully covered by stable, non-debt-creating capital flows. Their share in nominal GDP declined significantly in 2017, against the background of low absorption of European structural and investment funds (ESIF) under the current financial framework, and is assessed to gradually increase in 2018 and 2019, initially due to favourable developments in direct investment, and then also on the back of an improved ESIF absorption as a result of an accelerated implementation of investment projects financed from these sources. Nevertheless, the further widening of the current account deficit due to consumption might act towards the deterioration of macroeconomic equilibria, with a direct impact on capital inflows to the local economy, particularly as the sign of and developments in Romania's current account balance are divergent – deficit versus surplus, widening against narrowing, respectively – relative to those recorded by the other emerging economies in the region (i.e. Hungary, Poland, the Czech Republic, Bulgaria, Croatia).

Broad monetary conditions

Broad monetary conditions capture the 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[72] of the leu. The exchange rate exerts its influence via the net export channel, as well as via the effects on wealth and balance sheets of economic agents[73].

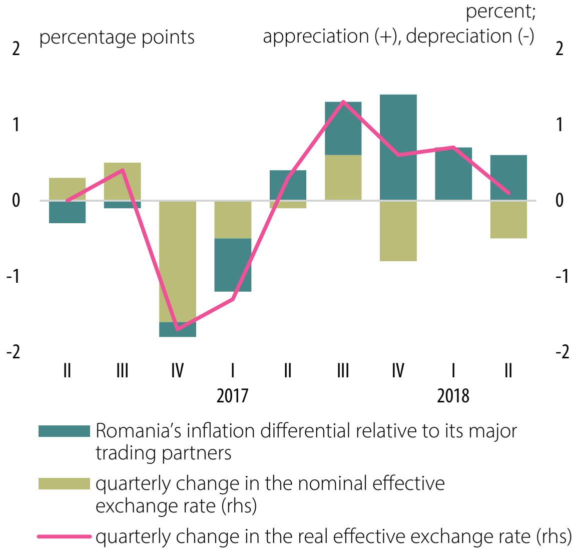
Both the average nominal interest rate on new loans in lei and that on new time deposits in lei are expected to pick up in 2018 Q2 and Q3, reflecting the recent hikes in interbank money market rates. The dynamics of nominal interest rates on new loans

72 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. The Consumer Price Index (in Romania and the US) and the Harmonised Index of Consumer Prices (in the euro area) are used to deflate the nominal effective exchange rate.

73 The relevance of this channel has declined gradually 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.

and new time deposits are also mirrored by real interest rates, amid lower increases in inflation expectations. For 2018 Q2 and Q3, the real interest rates continue to exert a cumulated stimulative impact, albeit on a decline, on the economic activity in the periods ahead.

Chart 4.9. Quarterly change in the effective exchange rate



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

In 2018 Q2, the real effective exchange rate is assessed to witness a marginal appreciation, the nominal depreciation versus the US dollar being more than offset by the higher domestic inflation rate[74] than those reported by Romania's trading partners (Chart 4.9). For the third quarter, the real effective exchange rate is anticipated to depreciate slightly, due to the prevailing effect of a weaker leu in US dollar terms. Accordingly, given the further higher domestic inflation rate than those of Romania's trading partners, the price competitiveness of the national economy deteriorated, the real effective exchange rate having a slightly restrictive impact on the economic activity in the periods ahead via the net export channel starting 2018.

In 2018 Q2 and Q3, the wealth and balance sheet effect is assessed to exert stimulative influences on the output gap in future periods, mostly on account of the real foreign interest rate (3M EURIBOR) standing below the equilibrium level (significant negative gap), given the ongoing strongly accommodative ECB monetary policy stance. The change in the real effective exchange rate gap has a close-to-neutral contribution to the wealth and balance sheet effect in 2018 Q2 and a slightly stimulative one in Q3. The sovereign risk premium, approximated based on the option adjusted spread (OAS), is estimated to have a marginally restrictive effect in 2018 Q2 and a slightly more pronounced one in Q3.

Overall, in 2018 Q2 and Q3, real broad monetary conditions are assessed to further diminish their stimulative impact on the aggregate demand in the following quarters, due to the lowering stimulative contribution of real interest rates and the restrictive impact of the real effective exchange rate via the net export channel.

Real broad monetary conditions are anticipated to diminish their stimulative influence over the projection interval and record close-to-neutral levels starting with the latter half of 2019. The real effective exchange rate via the net export channel is expected to be the main determinant of these developments, given the anticipated domestic inflation rate exceeding those of Romania's trading partners. The real interest rates are seen to further diminish their stimulative influence over the following quarters as well, continuing to gradually reflect the impact of the recent adjustments in

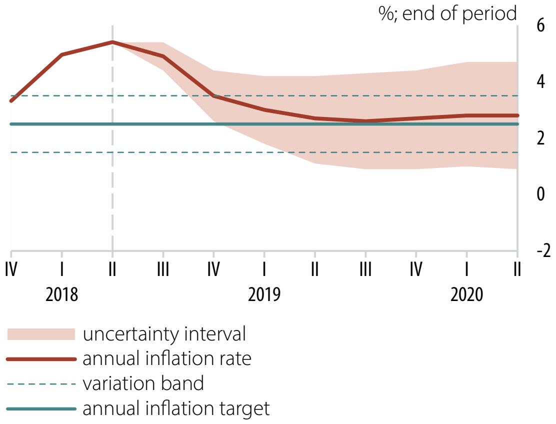
[74] Starting with the current forecast round, the real effective exchange rate is calculated based on the seasonally adjusted domestic CPI inflation rate net of the impact of VAT rate changes, as none of these factors affects the price competitiveness of the Romanian economy.

interbank interest rates and, implicitly, to mirror the NBR's monetary policy stance, which is configured to ensure an adequate dosage and pace of adjustment from the perspective of anchoring inflation expectations and maintaining price stability over the medium term, while safeguarding financial stability.

1.4. Risks associated with the projection

The balance of risks to the annual inflation rate projection is assessed as being tilted to the upside compared to the path in the baseline scenario, on account of both domestic and external factors (Chart 4.10). At the current juncture, the following are still relevant: the tight labour market conditions, as well as the coordinates of the external environment, from the viewpoint of developments in international commodity prices and further escalation of trade protectionism.

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



Notes: The uncertainty interval was calculated based on the annual CPI inflation forecast errors in the NBR projections during 2005-2017. The magnitude of forecast errors is positively correlated with the time horizon they refer to.

Source: NIS, NBR calculations and projections

On the domestic front, risks are primarily associated with labour market conditions, amid the anticipation of a further relatively high degree of tightness in the context of persistent structural deficiencies (pronounced skill mismatch, limited internal labour mobility, etc.), although projected to diminish slightly, considering the expected trajectory of the ILO unemployment rate. Against this backdrop, larger wage increases than those assumed in the baseline scenario, arising from either private or public sector, would generate a widening of the wage-productivity gap in the absence of increased efficiency of the production process and could diminish the margins of private companies, eventually fuelling additional inflationary pressures.

Another source of risk, deemed, however, to be balanced, refers to the fiscal and income policy stance. In view of the recent developments[75], a reason for concern comes further from the potential reconfiguration of the public budget coordinates over the projection interval in the event of budget underperformance. From this perspective, the adoption of compensatory fiscal measures aimed at keeping the budget deficit within the authorities' targets – especially should these measures refer to increases in current expenditures to the detriment of capital expenditures – is likely to generate risks to the forecast of the annual inflation rate. In the current macroeconomic context, it is further necessary to consistently implement a balanced macroeconomic policy mix, which is essential for preventing less desirable effects in the economy.

75 During the first six months of the current year, the budget deficit grew wider than in the previous years, coming in at approximately 1.6 percent of GDP in June.

On the external front, amid the US tariffs on some Chinese goods taking effect in early July (shortly followed by China's retaliatory measures against the US), a risk factor that became more relevant in the current round relates to a potential further increase in trade protectionism worldwide. The ECB's assessments[76] indicate only a marginal impact on global economy under the assumption of leaving the current level of tariffs unchanged. Consequently, the effects that might affect the Romanian economy via the indirect channel of external demand from the main trading partners are seen as relatively low. However, assuming protectionist measures come to be applied to a large range of goods and by all trading partners, the negative effects could become considerable. Specifically, shock waves would then be propagated via the trade channel, impacting the economy both directly and indirectly (owing to weaker external demand and higher prices of imported goods), and would be amplified by a possible increase in global risk aversion, causing the domestic currency to depreciate against the European currency[77].

At the same time, further relevant are the risks to global economic expansion amid the resurgent geopolitical tensions and the recent developments in the international financial markets showing a drop in the risk appetite especially as concerns emerging economies, concurrently with the re-emergence of financial safe havens mainly among advanced economies. Other factors that were further relevant in the current round refer to the effect on the international macroeconomic environment induced by the monetary policy stance of the major central banks and by the Brexit talks, in a context where the scenario underlying the UK's exit from the EU is still unclear. The materialisation of some of these risks could entail portfolio reallocations in the region and/or worldwide, with implications for the future path of the leu exchange rate and, implicitly, for the projected inflation rate, which is expected to be also affected via the channel of external demand from trading partners.

The balance of risks associated with administered prices, conditional upon the information available so far, is viewed to be in equilibrium. In the absence of clear, foreseeable information, two-way uncertainties surround especially the future developments in natural gas prices. Turning to the evolution of volatile food prices, permanent sources of uncertainty are associated with the impact of weather conditions on the supply of agricultural produce both domestically and regionally or even globally.

The balance of risks posed by international commodity prices (energy prices in particular) is assessed to be tilted to the upside from the path in the baseline scenario. High uncertainties continue to persist concerning the dynamics of the oil price, in the context of recent developments in crude oil prices and the heightened volatility seen on international markets over the last year, especially on account of supply-side factors (Box 2).

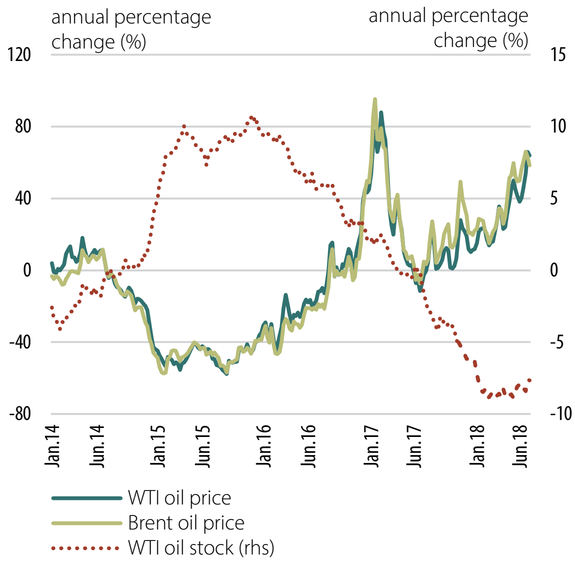
76 For details, see Box 1 in the ECB's *Economic Bulletin* Issue No. 3/2018.

77 According to the latest assessments by the International Monetary Fund (https://www.imf.org/en/Publications/WEO/Issues/2018/07/02/world-economic-outlook-update-july-2018), the further escalation of such tensions poses the most significant risk to global economic growth in the coming period. According to the institution's calculations, should the various threats related to imposing trade tariffs materialise, global economic growth could contract by 0.5 percentage points by 2020.

Box 2. Sensitivity scenario on oil price developments

After having reported 15-year lows in early 2016, the oil price entered an overall upward trend except for a short while in 2017 Q2. Behind this evolution stood mainly supply-side factors, among which mention should be made of the continuously shrinking oil stocks (Chart A), amid the OPEC+ agreement of December 2016 capping production, the deterioration in Venezuela's and Angola's production capacity, as well as the currently escalating geopolitical tensions[78]. However, the most recent developments foreshadow a possible slowdown in the growth rate, in the context of a new agreement within OPEC+ relating this time to the hike in oil production (in spite of persistent uncertainties about members' technical capacity to implement this hike) and of talks on using the US strategic oil reserves.

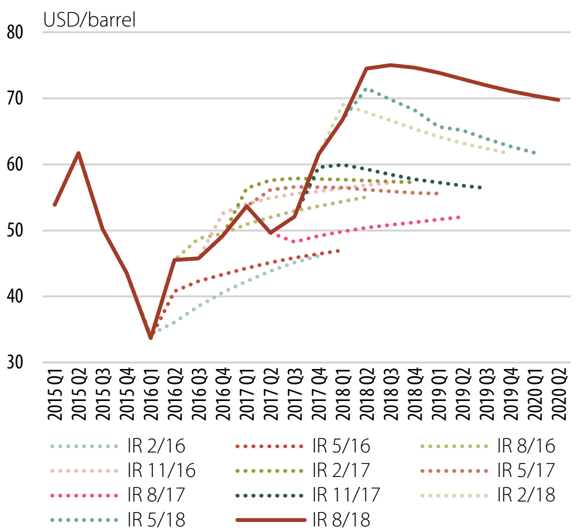
Chart A. Oil price and stocks



Source: U.S. Energy Information Administration

The enhanced uncertainty about the oil supply worldwide, together with demand fluctuations, increased the volatility of crude oil prices, which reflected in especially upward revisions of the trajectories of futures prices in the successive forecast rounds (Chart B) and which has recently been a major source of forecast errors[79].

Chart B. Revision of the Brent crude oil price trajectory in successive forecast rounds



Source: U.S. Energy Information Administration, Bloomberg, NBR calculations

In this context, this box looks into the sensitivity of the current macroeconomic projection to a possible upward deviation (of approximately USD 10 per barrel) of the oil price from the path considered in the baseline scenario. This value is based on the volatility of futures prices over the last year. The quantitative assessment of the impact of such a shock is carried out by using the model for analysis and medium-term forecasting (MAMTF)[80].

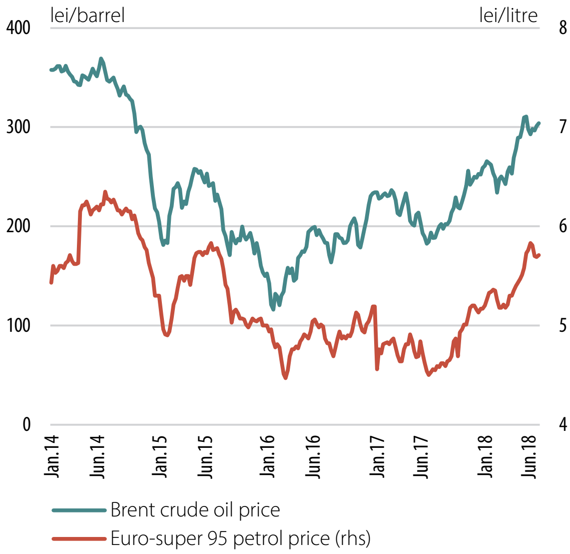
In Romania, the fluctuations in the international oil price pass through into the inflation rate both via the direct channel, i.e. the motor fuel price (Chart C) – a component of the fuel price, and the indirect channel, which relates to production costs in the consumer goods industry, including

[78] Particularly relevant are the situations in Libya, where a domestic conflict led to the temporary suspension of oil exports, and Iran, which, in view of the sanctions imposed by the USA, could face a drop in oil exports. At the same time, the safety of the main crude oil shipping routes is fraught with uncertainty, as revealed by Iran's threats to close the Hormuz Strait, which enables the transit of more than 30 percent of global oil exports.

[79] For further details, see Box 3 entitled "Assessment of Forecast Errors for the December 2017 Annual CPI Inflation" in the February 2018 *Inflation Report*.

[80] A brief description of the model is available at: http://www.bnr.ro/Monetary-Policy-Transmission-Mechanism--3242.aspx.

Chart C. Oil price and petrol station price



Source: U.S. Energy Information Administration, EC

the transport costs of economic agents. Once a shock occurs, unless it is accompanied by a string of other shocks, the previously-described effects, called first-round effects, are temporary. The period of time during which the annual inflation rate reflects these effects depends, on the one hand, on the shock transmission speed, and, on the other hand, once they have affected the annual inflation rate, on the persistence on inflation for four quarters. To the extent to which economic agents' inflation expectations incorporate the temporary change in consumer prices and shift to a different level, persistent (second-round) effects[81] can also be considered.

A higher path of the oil price (on average by approximately USD 10 per barrel starting from current values – which accounts for an increase by about 13 percent), reflecting a stronger upturn in the global demand for oil over the medium term or a drop in the oil supply as a result of frequently escalating geopolitical tensions, would lead to a pick-up in the CPI inflation (by some 0.2 percentage points at a one-year horizon). Approximately half of this effect is associated with the direct channel, with the pass-through coefficient related to the changes in crude oil prices into the motor fuel price being, according to empirical estimations, of about 20 percent at a four-quarter horizon. The rise in production costs, also due to the pick-up in the price of energy imports, is reflected in the path of core inflation, which is roughly 0.2 percentage points higher at the same horizon, inter alia, in the context of second-round effects. Nevertheless, second-round effects, which pass through via economic agents' inflation expectations, are assessed to have a relatively low impact of about 0.04 percentage points, given that the frequent supply-side shocks over the last years (associated with changes in both oil prices and agri-food commodity prices) led to the revision of inflation expectations especially in the short run, whereas in the medium term they remained inside the variation band of the target. This outcome depends, however, on the country-specific context at the time of the shock. Thus, if the shock occurs in an environment affected by high uncertainty and growing macroeconomic imbalances, or by frequent shocks acting in the same direction[82], it can lead to stronger and more persistent second-round effects, which could call for a more restrictive monetary policy stance in order to offset them and help the inflation rate meet the price stability objective.

The impact on economic growth is assessed to be low (up to -0.1 percentage points at a one-year horizon), given that Romania is among the EU Member States the least dependent on imported energy (importing 22.3 percent of its needs compared to the 53.6 percent EU average in 2016, according to Eurostat, with lower levels being reported by Estonia and Denmark only).

81 For further details on the pass-through mechanism of international oil price fluctuations into the inflation rate in Romania, refer to the Box entitled "Oil Prices – Their Impact on Inflation and Economic Activity" in the February 2015 *Inflation Report*.

82 For instance, in 2014-2016, the oil price followed a steadily downward path.

Abbreviations

CCR	Central Credit Register
CPI	consumer price index
DG ECFIN	Directorate General for Economic and Financial Affairs
EC	European Commission
ECB	European Central Bank
EIB	European Investment Bank
ESI	Economic Sentiment Indicator
EU	European Union
Eurostat	Statistical Office of the European Union
FAO	Food and Agricultural Organization of the United Nations
FOMC	Federal Open Market Committee
GDP	gross domestic product
GFCF	gross fixed capital formation
HICP	harmonised index of consumer prices
ILO	International Labour Office
IMF	International Monetary Fund
MPF	Ministry of Public Finance
NBR	National Bank of Romania
NIS	National Institute of Statistics
OPEC	Organisation of the Petroleum Exporting Countries
PMI	Purchasing Managers' Index
ROBOR	Romanian Interbank Offer Rate
TFP	total factor productivity
VAT	value added tax
VFE	vegetables, fruit, eggs

Tables

Charts