National Bank of Serbia

2022

May

INFLATION REPORT

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Number of copies: 60
ISSN 1820-9394

Introductory note

The Agreement on Inflation Targeting between the Government of the Republic of Serbia and the National Bank of Serbia, effective as of 1 January 2009, marks a formal switch of the National Bank of Serbia to inflation targeting as a monetary policy regime. The main principles and operation of the new regime are defined by the Memorandum on Inflation Targeting as a Monetary Strategy.

Since one of the underlying principles of inflation targeting is strengthening the transparency of monetary policy and improving the efficiency of communication with the public, the National Bank of Serbia prepares and publishes quarterly *Inflation Reports* as its main communication tool. The Inflation Report provides key economic facts and figures that shape the Executive Board's decisions and underpin activities of the National Bank of Serbia.

The *Inflation Report* aims to cover information on the current and expected inflation movements and to provide an analysis of underlying macroeconomic developments. It also seeks to explain the reasoning behind the Executive Board's decisions and to provide an assessment of monetary policy effectiveness during the previous quarter. Also integral to this Report are the inflation projection for eight quarters ahead, assumptions on which the projection is based and an analysis of key risks to achieving the target.

The information contained in this *Report* will help raise public understanding of monetary policy implemented by the central bank and awareness of its commitment to achieving the inflation target. It will also play a role in containing inflation expectations, as well as in achieving and maintaining price stability, which is the main statutory task of the National Bank of Serbia.

The May *Inflation Report* was considered and adopted by the NBS Executive Board at its meeting of 12 May 2022.

Earlier issues of the *Inflation Report* are available on the National Bank of Serbia's website (http://www.nbs.rs).

Executive Board of the National Bank of Serbia:

Jorgovanka Tabaković, Governor

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Ana Ivković, Vice Governor

Dragana Stanić, Vice Governor

ABBREVIATIONS

bp – basis point
CPI – Consumer Price Index
EBRD – European Bank for Reconstruction and Development
ECB – European Central Bank
EIB – European Investment Bank
EMBI – Emerging Markets Bond Index
EU – European Union
FAO – UN Food and Agriculture Organization
FDI – foreign direct investment
Fed – Federal Reserve System
FOMC – Federal Open Market Committee
GDP – gross domestic product
GVA – gross value added
H – half-year
IFEM – Interbank Foreign Exchange Market
IMF – International Monetary Fund
LHS – left hand scale
mn – million
NAVA – non-agricultural value added
NPL – non-performing loan
OFO – other financial organisation
OPEC – Organization of the Petroleum Exporting Countries
pp – percentage point
Q – quarter
q-o-q – quarter-on-quarter
RHS – right hand scale
RMCP – real marginal cost of processed food production
s-a – seasonally-adjusted
SDR – Special Drawing Right
SORS – Statistical Office of the Republic of Serbia
y-o-y – year-on-year

Other generally accepted abbreviations are not cited.

Macroeconomic projections presented in the *Report* were concluded on 4 May.

Contents

I Overview 1

II Monetary policy since the February *Report* 7

III Inflation movements 11

Text box 1: Serbia's economic policy response to rising global prices of food and energy – an overview of measures and comparative analysis of regional peers 13

IV Inflation determinants 21

1 Financial market trends 21

2 Money and loans 26

3 Aggregate demand 29

4 Economic activity 32

Text box 2: Macroeconomic effects of the Ukraine conflict on Serbia 34

5 Labour market developments 37

6 International environment 38

Text box 3: Anticipated effects of monetary policy normalisation by leading central banks on Serbia 46

V Projection 53

Text box 4: Revision of macroeconomic projections for Serbia and alternative scenario 71

Table A Indicators of Serbia's external position 75

Table B Key macroeconomic indicators 76

Index of charts and tables 77

Executive Board meetings and changes in the key policy rate 80

Press releases from NBS Executive Board meetings 81

I Overview

The period since the previous Report was marked by the outbreak of the conflict in Ukraine, which reflected on a more unfavourable global growth outlook and the build-up of inflationary pressures, primarily due to further hikes in the prices of energy, raw materials and food.

While uncertainty surrounding the course of the coronavirus pandemic and the emergence of new virus variants abated in the period since the previous *Report*, the heightening of geopolitical tensions and the outbreak of the conflict in Ukraine significantly exacerbated the global growth outlook and further fuelled inflationary pressures globally. As Russia and Ukraine are major global producers of cereals, metals and minerals, with Russia producing large quantities of oil and natural gas, the prices of these products touched or even exceeded their historical highs. This deepened the concern that shortages and halts in global supply chains, which were expected to be gradually resolved during this year, might prolong. The current energy crisis is stepping up cost-push pressures in the euro area, which is our key trade partner, which may result in its weaker growth, lower external demand for our exports, and higher prices of imported products and services. According to the projections of relevant international institutions, the euro area growth has been revised down for this year, while average inflation has been revised significantly up. These projections differ more than usual depending on the period when they were made – market trends have changed dramatically from the last week of February and the outbreak of the crisis in Ukraine, and global movements have been swayed by the further escalation and prolongation of the conflict. All international institutions judge the risks to macroeconomic projections as asymmetric – to the downside in case of GDP, and to the upside in case of inflation.

Inflationary pressures, stronger and more persistent than initially expected, along with pressures from the labour market, prompt central banks to tighten monetary conditions.

Inflationary pressures that are stronger and more persistent than expected and inflation rates hitting their multiple-decade highs, along with a tighter labour market, prompted the Fed to raise the federal funds rate in March and May, and the ECB to reduce the volume of quantitative easing in Q2. Future monetary policy decisions of leading central banks will depend primarily on the strength and duration of inflationary pressures, and their economies' growth prospects. A currently prevalent estimate is that monetary policy tightening may be faster than initially expected. The same factors influenced the decisions of the neighbouring central banks that pursue

inflation targeting regimes to continue to tighten their monetary policies.

The NBS also continued to tighten monetary conditions. Until the meeting in April, it was raising the weighted average rate at the reverse repo auctions of one-week withdrawal of excess dinar liquidity from the banking system, and from April by raising the key policy rate.

By using flexibility allowed by the current monetary framework, from October 2021 until the April meeting of the Executive Board, the NBS was tightening monetary conditions by raising the weighted average rate at repo securities sale auctions (by 84 bp). As the average repo rate almost equalised with the key policy rate, the decision was made at the meetings in April and May to increase the key policy rate by 50 bp each, to 2.0%. Further tightening of monetary conditions was prompted primarily by elevated cost-push pressures in the international and domestic environment, which intensified further with the outbreak of the conflict in Ukraine, and the need to impact inflation expectations of market players and limit second-round effects on the prices of other products and services. The Executive Board was also guided by increased uncertainty in the international financial market, which could, along with the effects of monetary policy tightening by leading central banks – the Fed and the ECB, result in dented capital flows – notably portfolio investment – to emerging economies, including Serbia.

As in other countries, y-o-y inflation in Serbia continued up this year, led mainly by higher global prices of energy, raw materials and food. Core inflation remains much lower than headline inflation and is below the figures recorded in neighbouring countries that pursue inflation targeting regimes.

Inflation in Serbia, just as in most other countries, continued up early this year, reflecting primarily the fresh rise in global prices of energy, food and raw materials amid elevated geopolitical tensions and escalation of the crisis in Ukraine, which stepped up the pressures in terms of producer and import prices. In March, headline inflation reached 9.1% y-o-y, still predominantly driven by higher food and energy prices. Core inflation (excluding the prices of food, energy, alcohol and cigarettes), which is under the strongest impact of monetary policy decisions, was almost twice lower than headline inflation, measuring 4.8% in March. Core inflation remained at a lower level owing to relative stability of the exchange rate, which has been a strong anchor of price stability in the past eight years.

Y-o-y lending activity accelerated compared to end-2021, remaining an important factor of investment and consumption financing.

When making the decision on monetary conditions, the Executive Board had in mind that support to economic growth could be ensured with somewhat more restrictive monetary policy as well. Although lending rates picked up somewhat at end-Q1, borrowing conditions in the domestic market can be assessed as favourable, in terms of support to lending activity and, by extension, to economic growth. In March, the y-o-y lending growth rate stood at 12.1%, with corporate loans providing a stronger contribution than household loans. The share of NPLs in total loans stayed below the pre-crisis level, equalling 3.4% in March, which indicates that NPLs are not an obstacle to the continuation of lending growth.

Fixed investment and private consumption continued to grow this year, propped up by the undertaken economic support measures, caps on fuel and electricity prices for the corporate sector, higher government capital expenditure, and increased employment and wages. In contrast, elevated imports of energy products, equipment and intermediate goods for investment projects reflect on a higher than expected negative contribution of net exports, even though manufacturing and mining exports continue to post high growth rates. On the production side, GDP growth of 4.3% y-o-y or 0.6% s-a q-o-q in Q1, according to the SORS estimate, is led by service sectors and the industry. Within total industry, manufacturing output continued up, in the face of persistent halts in global supply chains and dented external demand amid heightened geopolitical tensions and higher global inflation. Metal ore exploitation continues to increase significantly, while the production of coal and electricity continues to plummet.

Despite the negative effects of the conflict in Ukraine, most economic indicators in the domestic market continued to record positive tendencies in Q1.

Against the backdrop of a sharp rise in energy imports, primarily due to global energy price spikes, Q1 saw a current account deficit of EUR 1.3 bn. Energy imports also reflected on stepped-up depreciation pressures in the domestic FX market. These pressures were also spurred by increased risk aversion amid uncertainty in the international financial market, and rising citizens' demand for foreign cash, recorded in the first weeks of the conflict. FDI inflows of EUR 593 mn, which remained diversified by project and geography, worked in the opposite direction. The NBS alleviated these pressures by intervening in the FX market and thus providing banks with additional FX liquidity. As a result, the dinar weakened against the euro only marginally (0.1% since the beginning of 2022). Despite more frequent interventions, the country's FX reserves remained at an adequate level, covering five months' worth of goods and services imports, which is almost twice higher than the adequacy standard.

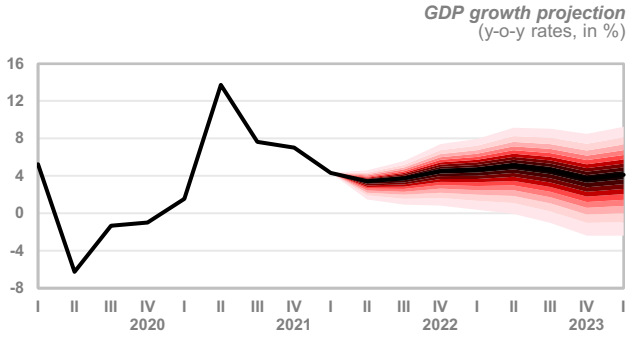
Higher energy imports accounted for 85% of the increase in the current account deficit in Q1 compared to the same period a year before.

In view of the negative effects of the crisis in Ukraine on global prices of energy and other primary commodities so far, and the revised estimates of the most important international institutions concerning global economic trends, the NBS revised its key macroeconomic projections – of GDP to the downside and of inflation and the current account deficit to the upside. However, we expect that the preserved full macroeconomic, financial and fiscal stability in Serbia, buttressed by exchange rate stability, will help minimise the negative effects of external factors, as was the case during the pandemic. This will also be supported by the excellent financial results of the Serbian economy achieved during the

As it happened in other countries, the escalation of the crisis in Ukraine impacted on revised projections of Serbia's key macroeconomic indicators – of GDP to the downside, and of inflation and the current account deficit to the upside.

pandemic years, the preserved business, investment and consumer confidence owing to the undertaken economic measures, continued stable FDI inflows, and record high government investment in road, railway and utility infrastructure.

The GDP growth projection for this year was revised down by 0.5 pp. Growth in 2022 is projected at 3.5–4.5%. The medium-term projection is unchanged at 4–5% p.a.



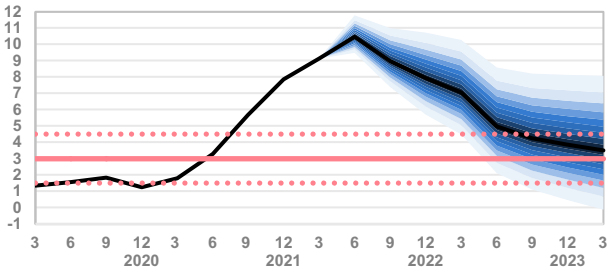
The GDP growth projection for this year was revised from 4–5% to 3.5–4.5%, based on the assumption that geopolitical tensions will not escalate further and that gas and oil supply in Europe will not be halted. On these grounds, we judge the risks to the projection to be titled to the downside. On the production side, soaring global and domestic prices of energy, food and inputs for industrial production will reflect on somewhat slower growth (than expected in February) in manufacturing, construction and, to a lesser extent, service sectors this year. Electricity production will most probably also be lower. Conversely, dampened coal production will be more than compensated by expanded exploitation of metal ores, which is expected to provide a stronger contribution to growth than in the previous projection. On the expenditure side, lower external demand will be offset by rising export supply based on past investment, but net exports will provide a higher negative contribution due to increased energy imports. On these grounds, we project that the share of the current account deficit in GDP will be higher this year, equalling around 6.5%, instead of below 5%, which we expected in February – according to NBS and IMF projections, this level ensures external sustainability. Compared to expectations from February, we estimate that the contribution of personal consumption and investment to GDP growth will be slightly lower due to smaller real disposable income amid rising costs. The growth in inventories will also probably be supported, in the short run, by the restriction of exports of agricultural commodities and the build-up of strategic commodity reserves. The medium-term GDP projection has been kept at 4–5% p.a. Favourable medium-term growth prospects are underpinned by the preserved investment and consumer confidence, an increase in production capacities and jobs, and the expected implementation of planned strategic projects, notably in road, railway and utility infrastructure.

Despite higher than expected inflation in Serbia in Q1, higher projected global prices of energy and primary agricultural commodities, and elevated imported inflation from the euro area, Serbia's inflation is likely to enter a downward path in H2 2022 and return within the target tolerance band in H2 2023.

According to the central May projection, we expect y-o-y inflation to hit a downward trajectory in H2 2022 and return within the target tolerance band most probably in H2 2023, only to continue to slow until the end of the projection horizon. The rise in global prices of primary commodities and energy, as well as imported inflation, which intensified further in the period from our February projection amid the outbreak of the conflict in Ukraine, will continue to exert inflationary pressures, in the short

run, on the prices of non-food products and services, and food products excluding fruit and vegetables, although their weakening is expected over the projection horizon. The new agricultural season should trigger a reduction in the currently high fruit and vegetable prices. The effects of past tightening of monetary conditions will also work towards calming of inflationary pressures, as will the effects of government economic measures on food and energy prices in the domestic market in the short run. Uncertainty surrounding the inflation projection is still mainly associated with the movement of global prices of food and energy, the length of halts in global supply chains and, to a lesser extent, the outcome of the agricultural season at home. We therefore judge that risks to the inflation projection, taken together, are skewed to the upside.

Inflation projection
(y-o-y rates, in %)



As the main risks to inflation and other economic trends continue to emanate from the international environment, the NBS will continue to follow and analyse trends in the international commodity and financial markets and estimate their impact on our economy. Depending on geopolitical developments and movement of key inflation factors from the domestic and international environment in the coming period, the NBS will assess whether there is a need for further tightening of monetary conditions or whether the effects of past tightening ensure inflation's sustainable return within the target band over the projection horizon. The priority of monetary policy remains to deliver price and financial stability in the medium run, to support further economic growth and development, encourage a further rise in employment, and ensure a favourable investment environment.

In case of materialisation of any of the risks that may drive inflation above the upper bound of the target tolerance band over a longer period, the NBS stands ready to respond in the shortest time with all instruments at hand.

II Monetary policy since the February *Report*

In the period since the February Report, the NBS continued tightening monetary conditions – until April meeting by raising the weighted average rate at reverse repo auctions whereby excess liquidity is withdrawn from the banking system on a one-week term, and since April also by increasing the key policy rate.

The decision to tighten monetary conditions further was guided primarily by the elevated cost-push pressures in the international and domestic environment, which were further intensified with the outbreak of the Ukraine crisis, and by the need to influence the inflation expectations of market agents and limit the second-round effects on the prices of other products and services. Moreover, the Executive Board had in mind that heightened uncertainty in the international market, together with monetary policy tightening of leading central banks – Fed increasing its key interest rates and ECB reducing the volume of quantitative easing, could dampen capital inflows to emerging markets, Serbia included, primarily under portfolio investment.

In making its monetary policy decision, the Executive Board assessed that the current tightening of monetary conditions would not act as a significant drag on economic activity in our country.

In the period since the February Report, the Executive Board continued with monetary policy tightening, bearing in mind the elevated cost-push pressures, predominantly on account of factors from the international environment, and the need to limit the second-round effects on other prices through inflation expectations. Using the flexibility of the current monetary framework, from October 2021 until the April Executive Board meeting, the NBS tightened monetary conditions by increasing the weighted average rate at repo auctions of securities sale (by 84 bp in total). Given that the average repo rate came almost to the level of the key policy rate, the Executive Board decided to raise the key policy rate by 50 bp in April and by additional 50 bp in May, to the level of 2%. At the same time, the interest rate corridor was widened to ±1.00 pp relative to the key policy rate, which brought the rates on deposit and credit facilities after the May meeting to 1% and 3%, respectively. The Executive Board's decision to tighten monetary conditions was motivated by inflationary pressures in the international and domestic markets, which proved stronger and more persistent than initially anticipated, especially following the outbreak of the Ukraine crisis.

The decision to further tighten monetary conditions was primarily influenced by the **higher import and producer prices**, which reflected the past hike in global prices of energy, food and raw materials, including soaring transportation costs, as well as global supply bottlenecks and shortages of some production inputs. The inflationary effects of these factors were further strengthened by geopolitical tensions and the outbreak of the Ukraine crisis, which fuelled a further increase in energy prices and global prices of primary agricultural commodities and metals. Given that Russia and Ukraine are important world producers of cereals and metals, and Russia also of oil and natural gas, the prices of these products approached their historical highs or even exceeded them. This has also raised concerns that shortages and delays in global supply chains, which were expected to be resolved gradually this year, could persist.

Heightened geopolitical tensions **increased uncertainty in the international financial market as well**, pushing up Serbia's risk premium and those of other European emerging economies. The decisions of leading central banks, the Fed and ECB will continue to have the strongest bearing on the international financial market and hence on capital flows to emerging economies. In line with the expectations, the Fed raised its main rates by 25 bp in March and by 50 bp in May, to the current range of 0.75–1.0%. Although it has not yet announced when it would raise its policy rate, in March, the ECB decided, amid stronger inflationary pressures than expected, to further reduce the scope of net purchases under the APP in Q2 (to

EUR 40 bn in April, EUR 30 bn in May and EUR 20 bn in June). Future monetary policy moves of leading central banks will depend primarily on the strength and persistence of inflationary pressures, but also on the growth prospects of their economies. According to the March projections, inflation in the US and the euro area was revised upward for this year, and economic growth downward. As the Fed and ECB's monetary policy normalisation could reflect on lower capital inflows and depreciation pressures in emerging economies, the Executive Board noted that caution needs to be exercised in monetary policy making. However, it pointed out that in the previous years macroeconomic stability in Serbia was strengthened significantly, external and internal imbalances narrowed and FX reserves increased, all which contributing to greater resilience of the domestic economy to shocks from the international environment.

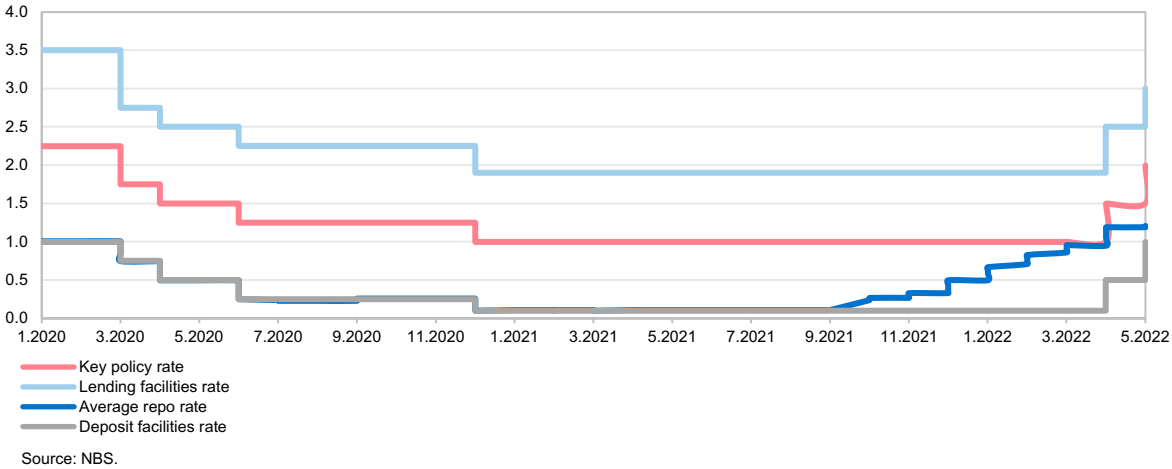
As opposed to geopolitical tensions and the pace of normalisation of monetary policies of leading central banks, **uncertainty as to the impact of the course of the pandemic and the appearance of new coronavirus strains** on the pace of global economic growth, global prices of primary commodities and hence on inflation, eased in the period since the February *Report*. A growing number of countries has relaxed restrictive health-related measures, assessing that the negative effects of the pandemic were milder than in the previous waves. However, **global growth projection has been revised down** amid rising inflationary pressures from higher prices of energy and primary commodities, as well as continued disruptions to global supply chains, Western sanctions on Russia, and shaken consumer and investor confidence. These effects could particularly affect the euro area, our most important trade partner, considering its strong trade and financial ties with Russia, and especially its energy dependence on Russia.

Global inflation growth continued in 2022 and in most countries, including the euro area, it exceeded the expectations, leading to upward revision of average inflation for this year. Besides higher energy prices and other production costs, in the inflation targeting countries in the region, inflation is also driven up by domestic demand, as well as labour market tightening, which is evidenced also by core inflation. For this reason, the central banks of these countries tightened monetary conditions in recent months to a greater degree than the NBS did.

In line with NBS expectations, in Q1 2022, y-o-y **inflation in Serbia** continued on the upward trajectory, but due to higher global inflationary pressures, it was at a slightly higher level than expected and measured 9.1% y-o-y in March. Inflation remained largely driven by the higher prices of energy and food, while core inflation (CPI excluding the prices of food, energy, alcohol and cigarettes), which is most affected by the monetary policy, was significantly lower than headline inflation and measured 4.8% y-o-y in March. What helped keep core inflation at a lower level is the **relative stability of the exchange rate**, which has been a powerful anchor of price stability over the past eight years.

Although the movements of global prices of energy and primary commodities in recent months indicate that inflation this year will be higher than projected in February, the Executive Board judges that it will have a **downward trajectory in the remainder of the year**. Beside the ensured relative stability of the exchange rate,

Chart II.0.1 **Movement in the key policy rate and average repo rate**
(y-o-y rates, in %)



Source: NBS.

this will be underpinned by the **onset of the new agricultural season and consequently lower costs of food production**, as well as by the **Serbian Government measures** to temporarily cap the prices of basic foodstuffs and fuel and allow companies to buy electricity in H1 2022 at much more favourable terms than the market ones.

Inflation expectations of the financial and corporate sectors for one year ahead grew moderately over the past months. The financial sector anticipates inflation to be around the upper bound of the tolerance band, while since December the corporate sector expects it to be even above the upper bound, most likely under the impact of higher energy prices. Nevertheless, **medium-term inflation expectations of the financial and corporate sectors stayed within the target band,** indicating that they consider that the rise in inflation is mainly a result of temporary factors.

In its monetary policy decision-making, the Executive Board had in mind that the current **tightening of monetary conditions would not significantly slow down domestic demand**. Since early 2022 fixed investment and private consumption continued to drive economic growth, supported by the ensured favourable terms of financing in the previous period and economic policy measures, as well as higher government capital expenditure and increased employment and wages. On the production side, growth is led by the service sectors, as well as by industry, despite subdued coal and electricity production. Manufacturing output is rising, despite persistent disruptions to global supply chains and contracted external demand amid heightened geopolitical tensions and higher global inflation. Due to the unfavourable global growth outlook following the outbreak of the Ukraine crisis, above all for euro area, the Executive Board judges that the risks to our economic growth this year are skewed to the downside, though the effects will depend primarily on the duration of the crisis.

As the main risks to inflation and economic outlook continue to emanate from the international environment, the NBS will continue to monitor and analyse trends in the international commodity and financial markets and assess their impact on the local economy. Depending on geopolitical developments and key inflation factors in the domestic and international environment in the coming period, the NBS will assess whether there is a need for additional tightening of monetary conditions or whether the effects of past tightening provide for a sustainable return of inflation within the target tolerance band in the projection horizon.

Delivering price and financial stability in the medium term will remain a priority of the NBS's monetary policy, along with supporting continued growth of our economy and employment and contributing to a favourable investment environment.

III Inflation movements

Inflation in Serbia measured 9.1% y-o-y in March. As in other countries in the region, its dynamics in Q1 continued to be dominantly driven by the prices of food and energy (with over two thirds of the contribution), which reflected the hike in global prices amid heightened geopolitical tensions and escalation of the Ukraine conflict.

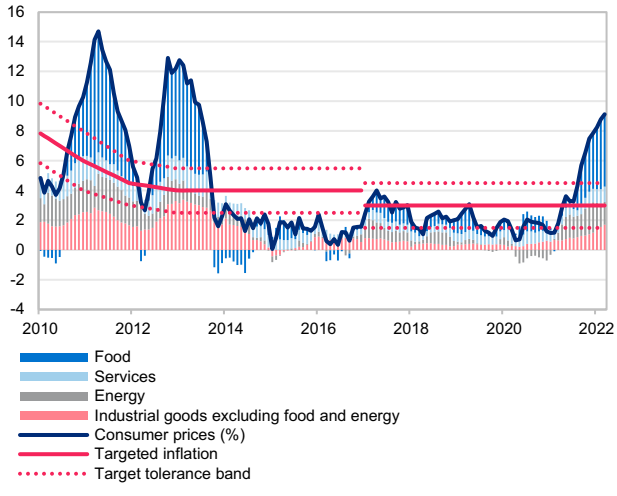
Core inflation continued to move considerably below the headline inflation also in Q1 (4.8% y-o-y in March), underpinned by the relative stability of the exchange rate and medium-term inflation expectations of the financial sector anchored within the target band.

Inflation movements in Q1

Although, under the February projection, we expected y-o-y inflation in Q1 to move at a similar or slightly higher level than at end-2021, intensified geopolitical tensions and escalation of the Ukraine crisis pushed global prices of energy, raw materials and food further up to or above their record highs. This also spurred growth in the producer prices and imported inflation, reflecting on the domestic inflation, which measured 9.1% y-o-y in March. Relative to December, higher y-o-y inflation in March was predominantly driven by the stronger contribution of food prices (by 1.1 pp), mainly under the impact of supply-side factors – last year's drought, soaring global prices of primary agricultural commodities and energy, and therefore, higher food production costs. Due to extended halts in global supply chains and shortages of some industrial raw materials, a higher contribution to y-o-y inflation in March relative to December came also from the prices of industrial products excluding food and energy (by 0.5 pp), which was, however, neutralised by an 0.5 pp lower contribution of energy prices due to the drop-out of the last year's electricity price hike from the calculation of y-o-y inflation.

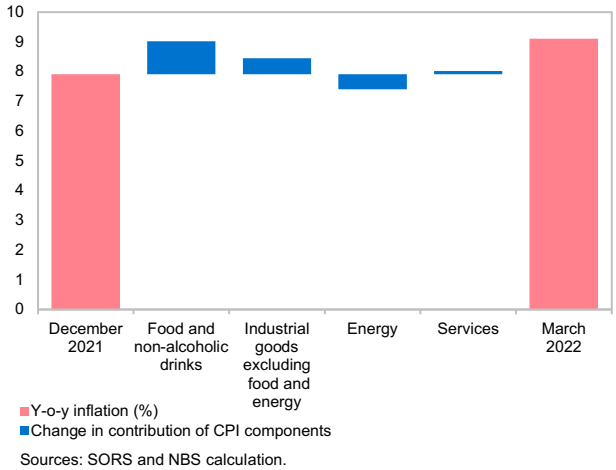
Amid a further increase in producer and import prices, **y-o-y core inflation** (CPI excluding food, energy, alcohol and cigarettes), i.e. a part of inflation which is most affected by the monetary policy, recorded growth in Q1 – from 3.5% in December to 4.8% in March, but it was still almost two times lower than headline inflation. Lower core inflation is underpinned by the relative stability of the exchange rate, despite heightened global uncertainty, as well as medium-term inflation expectations of the financial sector that are anchored within the target band.

Chart III.0.1 **Contribution of CPI components to y-o-y consumer price growth**
(in pp)



Sources: SORS and NBS calculation.

Chart III.0.2 **Changes in contribution of main CPI groups to y-o-y inflation**
(in pp)



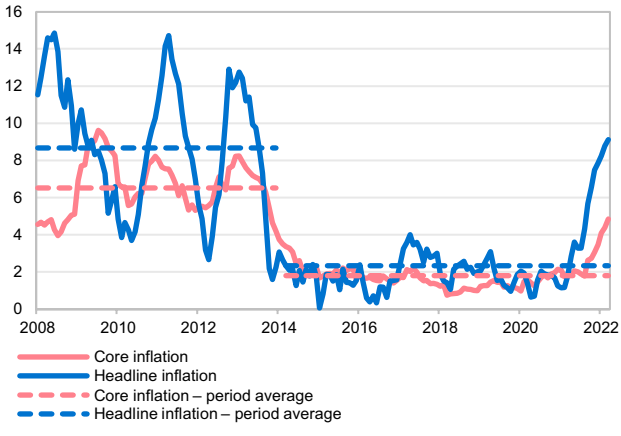
Sources: SORS and NBS calculation.

Table III.0.1 **Growth and contribution of components to consumer price growth in Q1 2022**
(quarterly)

	Growth rates (%)	Contribution (pp)
Consumer prices (CPI)	**2.8**	**2.8**
Unprocessed food	7.2	0.8
Processed food	3.2	0.7
Industrial products excluding food and energy	2.1	0.6
Energy	3.2	0.5
Services	0.9	0.2
CPI excluding energy, food, alcohol and cigarettes	1.3	0.6
Administered prices	0.8	0.1

Sources: SORS and NBS calculation.

Chart III.0.3 **Headline and core inflation**
(y-o-y rates, in %)



Sources: SORS and NBS calculation.

In quarterly terms, **consumer prices picked up by 2.8% in Q1**, mainly driven by the 4.5% hike in the prices of **food and non-alcoholic beverages** (with a 1.45 pp contribution). The prices of **unprocessed food** rose in Q1 (7.2%) on account of a seasonal hike in the prices of fresh vegetables in January and February, and price hikes in fresh meat in March amid a drastic surge in global market prices (mostly pork meat) due to elevated production costs. The prices of **processed food** picked up by 3.2% in Q1, with the rise in March moderated relative to the start of the year and Q4 2021.

Energy prices grew by 3.2% in Q1, mostly as a result of a significant rise in the prices of petroleum products (6.3%), which was somewhat mitigated since the second half of February by the Government's decision to temporarily reduce excise tax on petroleum products, and then also a decree capping the prices of petrol and diesel fuel in the domestic market.[1] The prices of solid fuels (firewood and coal) also went up in Q1 (4.6%), which is typical for this part of the year.

The prices of industrial products (excluding food and energy) recorded a similar monthly rise since late last year, measuring 2.1% in Q1 and reflecting mainly the increase in the prices of furniture and household appliances (3.5%) and cigarette price adjustment (3.1%), and to a lesser degree, the increase in other prices within this group. In contrast, a seasonal decline was recorded in Q1 for the prices of clothes and footwear (-1.9%).

The **prices of services** increased by 0.9% in Q1, on account of the higher prices of rents, transport, restaurant and hotel services. On the other hand, after rising in January and February, the prices of travel packages recorded a seasonal decline in March.

A mild 0.8% rise in **administered prices** in Q1 was driven by the regular cigarette excise tax adjustment in February.

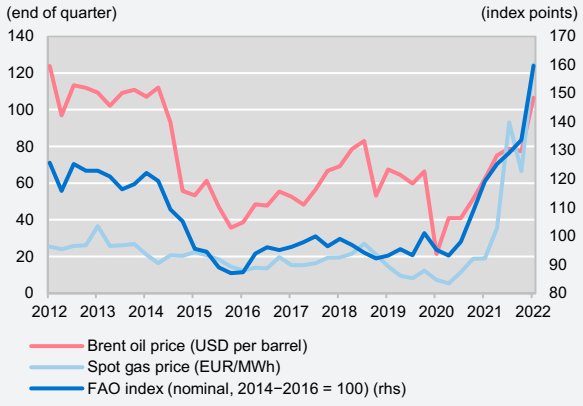
Prices within core inflation increased by 1.3% in Q1, led by the hike in the prices of household cleaning products, rents, pharmaceutical and medical products, as well as transport and catering services. Working in the opposite direction was the mentioned seasonal cheapening of clothes and footwear, and travel packages.

[1] See Text box 1, p. 13.

Text box 1: Serbia's economic policy response to rising global prices of food and energy – an overview of measures and comparative analysis of regional peers

The vigorous upsurge in energy and primary agricultural commodity prices in the global market continued from last year into early 2022 amid conflict escalation in Ukraine and the resulting economic and financial sanctions against Russia. This not only threatened the supply of natural gas and crude oil from Russia, as one of the leading global exporters, but also hindered the supply of cereals and different industrial raw materials. Global prices of food and energy have been rising for months as global demand swelled in response to the easing of containment measures on the one hand, and heightened uncertainty as to the duration of the conflict and mounting geopolitical tensions on the other.

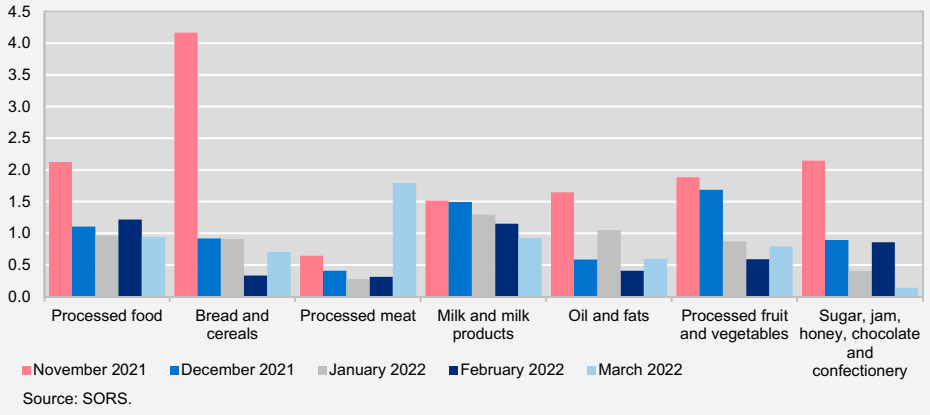
Chart O.1.1 **Gas prices in Europe and global oil and food prices**



Sources: Bloomberg, Refinitiv and UN, FAO.

To prevent elevated global energy and food prices from spilling over more robustly to prices at home and to ease the negative effect on households' living standard and corporates' business activity, **economies policy makers in Serbia took timely and proactive measures in several directions**. An exceptionally favourable agreement was reached with the Russian Federation in November 2021, under which the bulk of gas would continue to be imported at an unchanged price in H1 2022 (USD 270 per 1000 cubic meters of gas), this being one of the lowest prices in Europe. Before that, the price of bread (made from T-500 flour) was limited to RSD 46 for six months, and raised slightly in May to RSD 49 over the next 90 days due to the hike in prices of raw materials used in bread production. Soon after followed the adoption of the special ***Decree of the RS Government on Capping the Prices of Basic Foodstuffs***[1] – sugar, flour (type T-400 and T-500), edible sunflower oil, pork (loin), and 2.8% milk fat milk, limiting producer and wholesale and retail prices of these products to their level as at 15 November 2021. These products account for 4.2% of CPI. As a result, processed food prices growth slowed notably in December (1.1%) relative to November (around 2.1%). The Decree (together with several amendments) was initially valid for 60 days, but its validity was extended by 90 days due to further hikes in primary agricultural commodity prices. In late April, it was extended by 60 more days. Monthly growth in processed food prices in January (1.0%) and February (1.2%) was thus similar as in December (Chart O.1.2), softening slightly in March to 0.9%. In addition, **several times the government intervened by releasing**

Chart O.1.2 **Monthly growth in processed food prices in Serbia in late 2021 and Q1 2022**
(in %)



Source: SORS.

[1] The cap does not apply to discounted prices (sale, seasonal discounts or action sales), but to regular pre-discount prices.

Table O.1.1. **Serbia's economic policy response to rising global prices of food and energy**

Regulation of the RS Government	Date of publication of the Official Gazette	Period of validity	Expected effects*
1. Decree on Mandatory Production and Sale of Bread Made of T-500 Flour (RS Official Gazette, No 106/2021)			
- Regulates mandatory production and sale of bread made of T-500 flour, the price of which is capped at RSD 46.00; - Sets maximum margin, unsold amount and deadlines for payment to business entities producing bread made of T-500 flour;	Issued: 10 November 2021	Six months originally	Control of the price of bread in production and trade and unhindered supply to consumers Compensation of a part of costs to producers and bakers through a slight adjustment of the bread price, taking into account the hike in prices of all inputs in bread production since November last year
- Price of bread made of T-500 flour is capped at RSD 49.00.	Valid until: 10 May 2022	Extended by three months	
2. Decree on Capping the Prices of Basic Foodstuffs (RS Official Gazette, Nos 114/2021, 116/2021, 119/2021, 12/2022 and 50/2022)			
Temporarily caps the prices of the following foodstuffs (as at 15 November 2021): - crystal sugar, 1 kg packet; - type T-400 flour, soft, up to 5 kg packet, including the 5 kg packet; - type T-500 flour, up to 5 kg packet, including the 5 kg packet; - edible sunflower oil, 1 l packet; - pork - loin; - UHT milk with 2.8% of milk fat, 1 l packet.	Issued: 30 November 2021 Amended: 2 December 2021 and 10 December 2021 Valid until: 1 February 2022	60 days originally Extended by 90 days	Preventing excessive growth in food product prices and supply disruptions; limiting the negative impact on households' inflation expectations Preventing distortions in the formation of prices of these products, which are vital for consumers, particularly the socially vulnerable categories
Subsequently, the maximum retail price of RSD 113.99 was prescribed for the price of UHT milk with 2.8% milk fat, 1 l packet, instead of the level as at 15 November 2021.	Amended: 28 April 2022	Extended by 60 more days	
3. Decree on Temporarily Capping the Price of Gas and Compensating the Difference in the Price of Natural Gas Obtained from Import or Produced in the Republic of Serbia in Case of Disruptions in the Natural Gas Market (RS Official Gazette, Nos 132/2021 and 30/2022)			
Temporarily caps the price of gas and defines the right to compensation of the difference in the price of natural gas obtained from import or produced in the Republic of Serbia used for calculating the resale price and the basic price.	Issued: 30 December 2021 Valid until: 4 March 2022	30 days originally Extended to 60 days	Compensation of costs of import and delivery of gas for the corporate sector, and prevention of spillover to higher prices of gas for households and other products in case of disruptions in the natural gas market
4. Decision on the Conditions and Manner of Reducing Customs Duties on Certain Goods and/or of Exempting Certain Goods from Customs Duties in 2022 (RS Official Gazette, Nos 132/2021, 9/2022 and 32/2022) – consolidated text			
- Reduces or abolishes customs duties on certain goods - raw materials, intermediate goods and components; - Reduces customs duties on processed tobacco not produced in Serbia in the necessary amount and appropriate quality, used by users in their own production; - Zero customs rates on crude oil and oils obtained from bituminous minerals, ammonia and nitrogenous fertilisers.	Issued: 30 December 2021 Amended: 21 January 2022 Valid until: 10 March 2022	Six months originally Extended to a year	Reduction of costs for companies and agricultural producers in respect of import of goods which are either not produced in Serbia or their production does not meet the quality or quantity requirements of the domestic market, and significantly affects the price and competitiveness of finished products in the domestic and foreign market
5. Decision on Temporary Reduction of Excise Duties on Petroleum Products (RS Official Gazette, Nos 32/2022 and 50/2022) from Article 9, paragraph 1, items 1), 2) and 3) of the Law on Excise Duties			
Temporarily reduces excise duties by 20% (until 30 April 2022): - leaded petrol – excise duty equals RSD 49.20 per litre; - unleaded petrol – excise duty equals RSD 46.27 per litre; - gas oils – excise duty equals RSD 47.58 per litre.	Issued: 10 March 2022	Until 30 April	Relieving a part of fuel expenses for consumers Maintaining energy stability and the functioning of retail sale and wholesale of petroleum products in the country amid rising crude oil prices in the global market
Temporarily reduces excise duties by 15% (until 31 May 2022): - leaded petrol – excise duty equals RSD 52.28 per litre; - unleaded petrol – excise duty equals RSD 49.16 per litre; - gas oils – excise duty equals RSD 50.56 per litre.	Amended: 28 April 2022	Until 31 May	
6. Decree on Capping Petroleum Product Prices (RS Official Gazette, Nos 17/2022, 32/2022, 35/2022, 46/2022 and 50/2022)			
Temporarily caps the prices of the following petroleum products: - euro diesel, at the level of the average wholesale price of euro diesel in the territory of the Republic of Serbia, increased by six dinars; - euro diesel intended for registered agricultural estates, in the amount of RSD 179.00; - euro premium BMB 95, at the level of the average wholesale price of euro premium BMB 95 in the territory of the Republic of Serbia, increased by six dinars;	Issued: 11 February 2022 Valid until: 11 March 2022 Amended: 17 March 2022 and 7 April 2022	30 days originally Extended until 30 April	Preventing excessive growth in petroleum product prices and its spillover to prices of other products
Average wholesale price of euro diesel and euro premium BMB 95 in the territory of the Republic of Serbia, increased by seven dinars each, until end-May 2022.	Amended: 28 April 2022	Additionally until 31 May	
7. Decision on Temporary Export Ban on Essential Agri-Food Products Important to the Population (RS Official Gazette, Nos 32/2022, 35/2022, 48/2022 and 49/2022) – consolidated text			
Temporarily bans the export of the following products: - wheat grain; - wheat flour; - corn; - groats; - sunflower oil.	Issued: 10 March 2022 Amended: 17 March 2022 Amended: 15 April 2022 Valid until: 20 April 2022	-	Preventing shortages and maintaining the population's food security
Monthly quotas for the export of cereals were subsequently approved: - 150,000 tons of wheat; - 150,000 tons of corn; - 20,000 tons of flour; - 8,000,000 litres of refined sunflower oil.		-	

Source: RS Official Gazette.

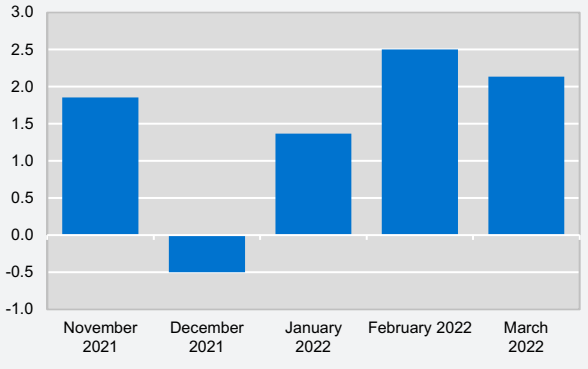
* Estimate of the NBS and government institutions.

commodity reserves in some market segments, supplying cheaper products to consumers, which is particularly important for lower-income population categories. In our view, because these measures refer to vital products, they also had an important impact on households' inflation expectations.

As the European energy crisis deepened, the **Government took a set of measures to rein in excessive growth in petroleum product and gas prices in the domestic market**, and to prevent its spillover to prices of other products. Already in late 2021, the ***Decree on Temporarily Capping the Price of Gas*** was adopted, setting the price of gas for resale and the basic price of natural gas[2] (in dinars per cubic meter), as well as granting the right to compensation of the difference between the price of natural gas obtained from imports or produced in the country to energy companies in case of disruptions in the natural gas market. The cap was initially effective until early March, but was then extended by 60 days, as the consequences of the energy crisis were further compounded by the situation in Ukraine. During this time, the price of natural gas for Serbian households remained unchanged in order to preserve the purchasing power of consumers using this energy product. In late 2021, the RS Government also adopted the ***Decision on the Conditions and Manner of Reducing Customs Duties on Certain Goods in 2022***. This relates to imports of intermediate goods and components originating from countries with which Serbia has entered into free trade agreements. In March, the Decision was supplemented to include zero customs rates for crude oil and nitrogenous fertilisers, allowing domestic companies and agricultural producers to import crude oil from "third countries" at a rate lower than that prescribed in the *Customs Tariff Law* and reducing the costs of fuel and mineral fertilisers procurement for agricultural sowing.

Taking into account elevated energy costs caused by the upswing in global crude oil prices, the Government decided not to make the regular January adjustment of excises on petroleum products, and later adopted the ***Decision on Temporary Reduction of Excise Duties on Petroleum Products*** (leaded petrol, unleaded petrol and gas oils), reducing by 20% the dinar amounts of excises on petroleum products for 30 days. We estimate that lower excises reduced inflation by around 0.4 pp. After subsiding in December, petroleum product prices gained around 4.0% since the start of the year. The 2.5% growth recorded in February (Chart O.1.3) referred predominantly to the first half of the month, as in mid-February, the ***Decree on Capping Petroleum Product Prices***[3] was adopted, prescribing, for a 30-day period, the manner of calculating maximum retail prices of petroleum products – euro diesel and euro premium BMB 95. In March, the rise in petroleum product prices slackened to 2.1%, which is attributable to the implementation of the *Decree*, extended in late April by 30 more days under the impact of steady cost-push pressures from the international energy market. It should also be noted that amendments to the Decree explicitly cap the retail price of petroleum products for registered agricultural estates to RSD 179 per litre, in order to lower operating expenses of agricultural producers in this way as well, while the average wholesale price of euro diesel and euro premium BMB 95, increased by seven dinars each, will be valid until the end of May.[4] In addition, the Government also decided that, until end-May, excises on the above petroleum products should be 15% lower, instead of 20% lower as so far, since crude oil prices decreased in the meantime.

Chart O.1.3 **Monthly growth in petroleum product prices in Serbia in late 2021 and Q1 2022**
(in %)



Sources: SORS.

The ***Decision on Temporary Export Ban on Essential Agri-Food Products Important to the Population*** – wheat grain, wheat flour, corn, groats and sunflower oil, was adopted in the first half of March. Its purpose was to prevent critical shortages of these products in the conditions of elevated demand globally and at home. Based on contracts concluded before

[2] Used in the calculation of the price for resale to suppliers and end buyers at the level of the average unit price of natural gas for November 2021.

[3] For the duration of the Decree (which does not refer to additive-enriched petroleum products), the Ministry of Trade, Tourism and Telecommunication sets maximum retail petroleum product prices each Friday and publishes them on the official web page (by 3 p.m. at the latest).

[4] Business entities trading in motor and other fuels at petrol stations are required to continue supplying these petroleum products by filling the vehicle fuel tanks or transport containers in the maximum quantity of 60 litres.

the Decision came into force, the Government approved the export of mercantile wheat and corn to businesses exporting these products to the markets of Albania, North Macedonia and Italy, enabling domestic companies and agricultural producers to increase their trade and earnings. Subsequently, the Government also approved quotas for the export of wheat, corn, flour and refined sunflower oil, allowing exporters to apply (in line with the provided instruction) for the export of no more than 20% of the quantity approved by product group on a monthly level. It has been estimated that the export of these cereals would not cause disruptions in the activity of Serbia's agricultural complex or threaten the population's food security, whereas at the same time it would contribute to maintaining good trade relations.

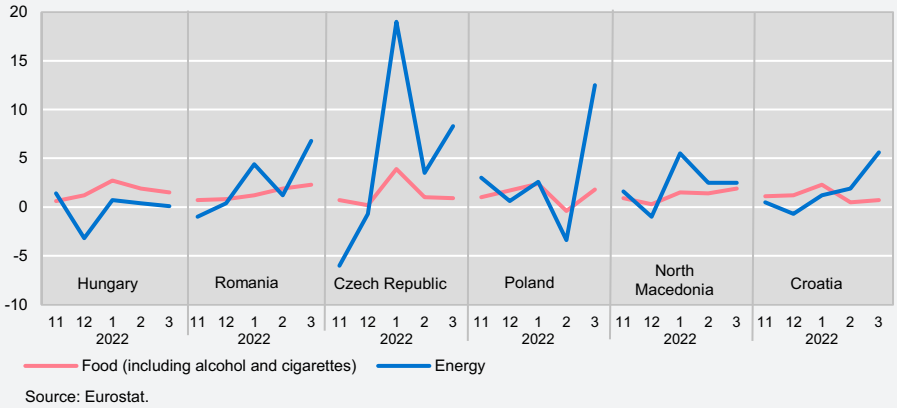
Through all of the above regulations (chronologically listed in Table O.1.1), the government has acted towards easing inflationary pressures and suppressing second-round effects on prices of other goods and services through inflation expectations. It has also sought to ensure smooth supply of food and energy, which are vital for the functioning of commodity and money flows in extremely unfavourable and unpredictable global circumstances.

Economic policy response in some countries of the Central and Southeast European region to rising global prices of food and energy

Other countries of the Central and Southeast European region have taken similar administrative and fiscal measures to contain hefty growth in consumer prices and control their dynamics over the coming months.

In mid-November, **Hungary** decided to cap petroleum product prices for three months, thus avoiding a 0.5–0.6 pp rise in headline inflation (according to leading analysts' estimates). The decision was then extended by three more months. As of February, it limited the prices of basic foodstuffs (milk, sugar, flour, sunflower oil, some categories of chicken and pork) to their level as at 15 October 2021, which helped bring inflation down by an estimated 0.5 pp. **Romania** adopted the Law on Protecting Vulnerable Energy Consumers, defining a scheme of distribution of a monthly compensation to households for electricity and natural gas consumed in the November 2021–March 2022 period. The same regulation sets out compensations for SMEs, entrepreneurs and family businesses, and exempts corporations from electricity tariffs and charges. It has also been announced that the planned trimming of the VAT rate on electricity prices (from 19% to 5%) from April would also be considered to be applied to petroleum product prices, with the suggestion to temporarily suspend VAT collection on basic food products.

Chart O.1.4 **Dynamics of food and energy prices in some countries of the Central and Southeast European region in late 2021 and Q1 2022**
(HICP components, monthly rates in %)



Source: Eurostat.

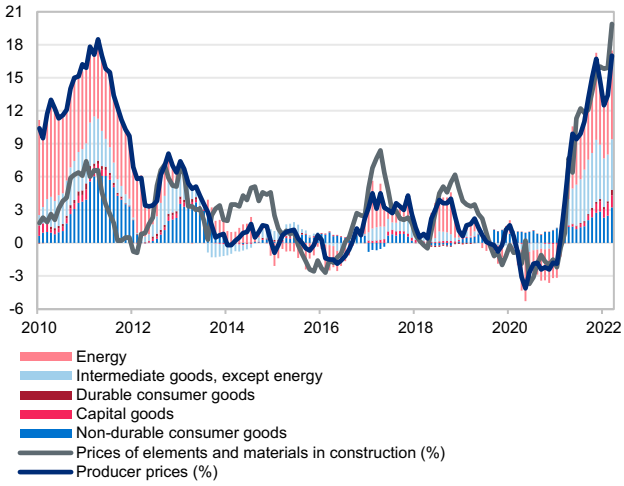
The **Czech** government decided to cut VAT on electricity and natural gas prices to zero in November and December, lowering headline inflation by around 1.0 pp. **Poland** implemented two sets of fiscal measures (so-called anti-inflation shields). The first set deferred excise duties and lowered VAT on electricity and natural gas prices, along with two payments of financial assistance to citizens. This produced an aggregate effect on reducing inflation by an estimated 1.0 pp. The second bundle of measures suspended VAT on basic food products, natural gas and fertilisers, while the VAT rate on

petroleum product prices was trimmed from 23% to 8% in the February–July period. The duration of the first package was extended from the initially planned five months (until end-May) to seven months (until end-July) to synchronise the effects of the adopted measures, estimated to be worth a total of around EUR 7.5 bn (1.2% of GDP).

In the Western Balkans, **North Macedonia** adopted 26 measures in early March to prevent an economic crisis and further price growth (worth an estimated EUR 400 mn). They include the abolishing of the 5% VAT rate on staple foodstuffs and the distribution of cash vouchers to around 35 thousand employed and retired persons to be used by end-May in order to buy certain food products. In October, **Croatia** capped petroleum product prices for 30 days. It lifted this cap in December, only to reinstate it early February on petrol and diesel prices. A set of economic measures was adopted in late March (worth an estimated EUR 636 mn), including assistance to pensioners and energy vulnerable households (around 90 thousand), gas expense subsidies for SMEs, and the slashing of the VAT rate on the supply of electricity and heating from 25% to 13%, and to 5% for natural gas deliveries until March 2023.

Overall, the economic measures introduced by Serbia and countries of the region to contain inflation can be classified in three related groups: 1) temporary capping of prices of energy and basic food products through administrative and legal regulations, implemented in Serbia and Hungary; 2) temporary reduction and/or abolishing of VAT rates on energy and food prices, adopted by Poland, the Czech Republic and Romania; and 3) successive combination of administrative restrictions and fiscal measures in North Macedonia and Croatia. **The intention of economic policy makers in Serbia and other countries of the region is to apply a set of measures to restrict temporarily the rise in the prices of vital food and energy categories, which have a major impact on headline inflation.** Indirectly, this prevents a more notable and durable spillover of cost-push pressures on other prices through inflation expectations. In this way, the government is trying to contain the negative (economic and psychological) impact of rising global food and energy prices on households' purchasing power and relieve a part of energy procurement costs borne by the corporate sector, helping the private sector avoid more serious consequences and continue to drive economic growth. For this reason, the government will regularly weigh whether the existing measures are justified and whether new measures are needed, considering the achieved and anticipated effects and economic developments at home and abroad.

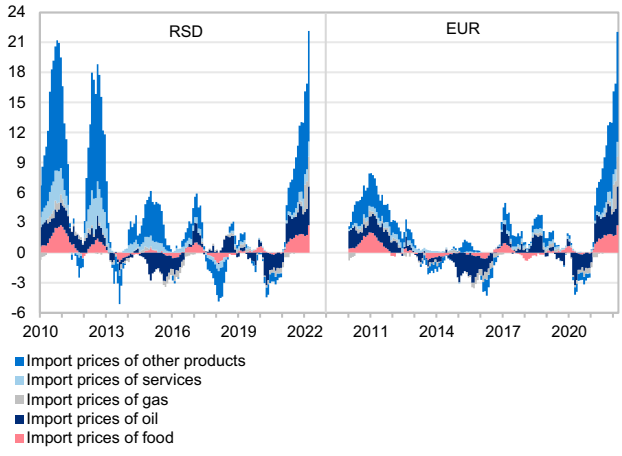
Chart III.0.4 **Contribution of components to y-o-y producer price growth***
(in pp)



Sources: SORS and NBS calculation.

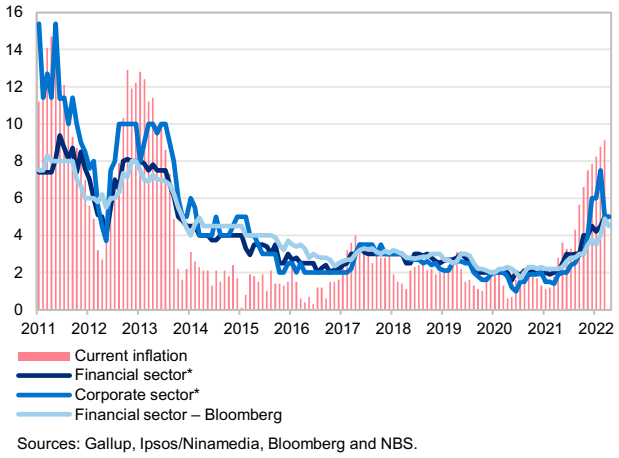
* Industrial producer prices for the domestic market.

Chart III.0.5 **Contribution of individual components to y-o-y rate of import price growth**
(in pp)



Sources: Destatis, FAO, Bloomberg, Eurostat, SORS and NBS calculation.

Chart III.0.6 **Current inflation and one-year ahead inflation expectations**
(y-o-y rates, in %)



Sources: Gallup, Ipsos/Ninamedia, Bloomberg and NBS.

* Ipsos and Gallup until December 2014, Ninamedia since December 2014, and Ipsos since January 2018.

Producer and import prices

Following their mild slowdown in late 2021 and early this year, **industrial producer prices in the domestic market** accelerated their y-o-y growth again to 17.0% in March, spurred by the intensified cost-push pressures in the production of energy and intermediate goods (chemicals, rubber and plastic products and base metals), and of higher prices of capital and consumer goods (durable and non-durable). Similar to industrial producer prices, y-o-y growth in the **prices of elements and materials incorporated in construction** in January and February slowed down mildly relative to end-2021, only to accelerate again to 19.9% in March, indicating pronounced cost-push pressures in construction, which also reflect the extended halts in global supply chains and shortages of some inputs.

After a mild slowdown in December, **import prices of goods and services**[2] (expressed in dinars) continued on an upward path and recorded a 22% y-o-y growth in March, driven predominantly by the higher export prices of Germany (which are used for the approximation of the import prices of equipment and intermediate goods). Other components also increased their contribution to the y-o-y growth in import prices in March, mainly global energy and food prices, and to a lesser degree, euro area consumer prices (used for the approximation of the import prices of services).

Inflation expectations

Current inflation growth reflected also on higher inflation expectations of the financial and corporate sectors, though not fully, whereby medium-term inflation expectations stayed within the target band.

According to the survey results of both agencies, in March **one-year ahead** inflation expectations **of the financial sector** moved outside the NBS target tolerance band for the first time since September 2013. According to the **Ipsos** survey, after falling to 4.2% in January, inflation expectations of the financial sector rose in the following months, reaching 5.0% in March, and staying there in April as well. According to the **Bloomberg** survey, inflation expectations were at similar levels in March (4.9%), but receded in April to 4.5%.

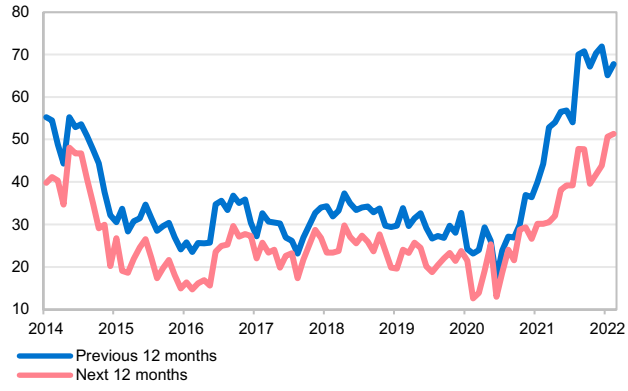
[2] Preliminary data. The weighted average of the global Brent oil price, food price index (FAO index), euro area consumer prices, and export prices of Germany, one of Serbia's most significant trade partners, is used as an indicator of import prices. The base year is 2010.

The results of the April Ipsos survey indicate that inflation expectations of the **corporate sector** eased. They stagnated at 6.0% in January, rose to 7.5% in February, only to decrease by 2.5 pp to 5.0% in March, where they stayed in April as well. The net percentage (NP) of corporates expecting rising cost-push pressures from input prices over the next three months went up to 78.2%, which is similar to the percentage of corporates expecting an increase in input prices over the next twelve months. At the same time, the NP of corporates expecting an increase in the prices of their own products/services over the next three months is lower - at 68.1%. This could lead to the conclusion that the increase in producer prices is still driven by elevated production costs, and not by demand, because corporates will seek to compensate a part of those costs with lower margins.

After stagnating at 10.0% in January, **one-year ahead inflation expectations of households** rose amid heightened geopolitical tensions to 15.0% in February, stayed at that level in March and then climbed to 20.0% in April. The results of the qualitative survey[3] show that the index of perceived inflation is higher than the index of expected inflation, indicating that households expect that inflation will be lower in the coming 12 months compared to the previous year.

Medium-term inflation expectations of the financial and corporate sectors for two and three years ahead reported in April were within the NBS target tolerance band, measuring 4.0% and 3.5%, respectively. This might indicate that these two sectors perceive the current higher inflation as temporary. **Two- and three-year ahead inflation expectations of households** stayed unchanged at 10.0%.

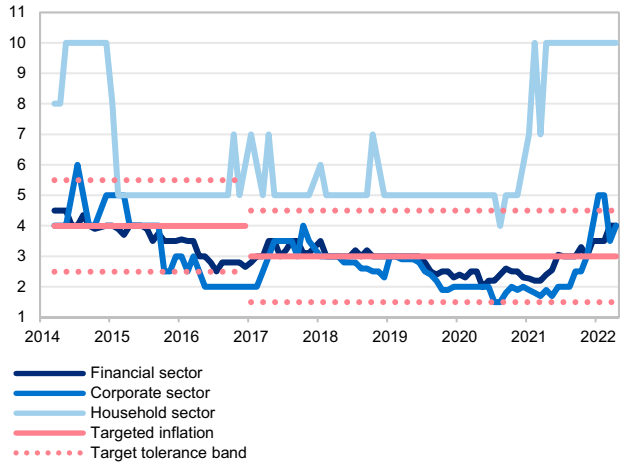
Chart III.0.7 **Household perceived and expected inflation***
(in index points)



Sources: Ipsos/Ninamedia and NBS calculation.

* Ipsos until December 2014, Ninamedia since December 2014, and Ipsos since January 2018.

Chart III.0.8 **Two-year ahead inflation expectations***
(y-o-y rates, in %)



Sources: Ipsos/Ninamedia and NBS.

* Ipsos until December 2014, Ninamedia since December 2014, and Ipsos since January 2018.

[3] For more details on qualitative expectations of households see the February 2016 *Inflation Report*, Text box 2, p. 15

IV Inflation determinants

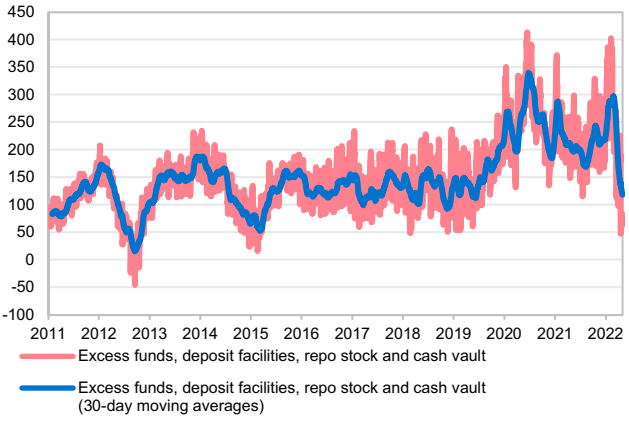
1 Financial market trends

The continued tightening of monetary conditions reflected on money market interest rates, triggering also a mild rise in dinar loan rates in late Q1. The yield rates on government securities also increased during Q1, driven by heightened uncertainty in the global financial market.

Interest rates

In Q1, the NBS continued to reduce monetary policy accommodation by raising the weighted average interest rate in reverse repo auctions. At end-March this rate almost equalised with the key policy rate, at 0.96%, which is a rise of 46 bp relative to end-2021. In conditions of reduced excess dinar liquidity of banks, partly seasonal in nature and partly stemming from NBS interventions in the FX market (mainly FX sales), the stock of repo securities sold also went down in Q1 (from the average RSD 72.3 bn in December 2021 to the average RSD 39.5 bn in March). On the same account, the average daily balance of bank's overnight deposits with the NBS subsided from RSD 67.4 bn in December 2021 to RSD 42.0 bn in March.

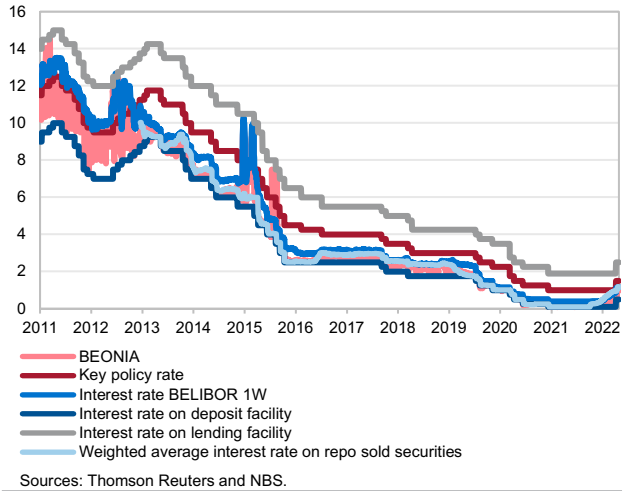
Chart IV.1.1 **Dinar liquidity**
(in RSD bn)



Source: NBS.

The rise in the weighted average repo rate reflected on the rise in interest rates in the **overnight interbank money market**. Thus, BEONIA increased by 53 bp in Q1, to 0.76% at end-March. The average daily turnover almost doubled in Q1, reaching close to RSD 7.0 bn, which can be associated with the buoyant demand for dinar funds. BELIBOR rates of all maturities also increased, by around 30 bp in Q1. At end-March, they moved from 0.58% for the shortest maturity to 1.39% for the six-month maturity. The average interest rate on concluded one-week transactions in the interbank money market also edged up, by over 50 bp, so that its average value in March (0.95%) was almost equal to the key policy rate.

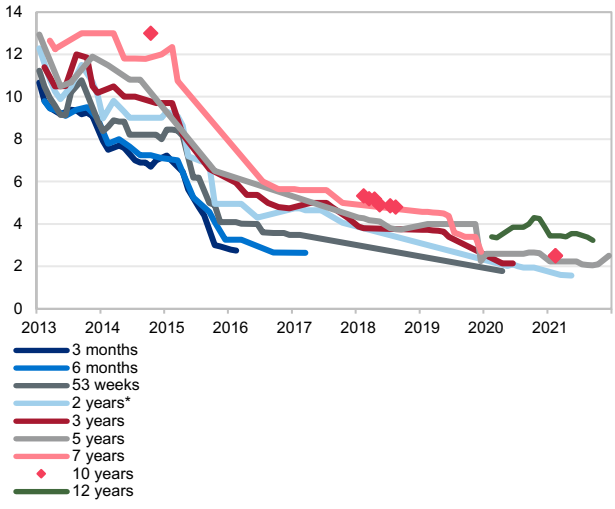
Chart IV.1.2 **Interest rate movements**
(daily data, p.a., in %)



Sources: Thomson Reuters and NBS.

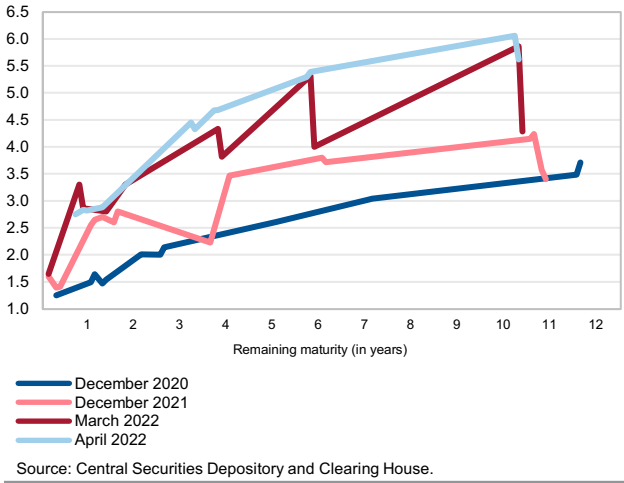
In April, the NBS raised the key policy rate by 50 bp, to 1.5%, and widened the interest rate corridor to ±1.00 pp relative to the key policy rate (i.e. increased the rates on deposit and credit facilities to 0.5% and 2.5%, respectively), which directly reflected on the movement

Chart IV.1.3 **Interest rates in the primary market of dinar government securities**
(p.a., in %)



Source: Ministry of Finance.
* Excluding coupon securities with the rate linked to the NBS key policy rate.

Chart IV.1.4 **Yield curve in the secondary government securities market**
(average values, p.a., in %)



Source: Central Securities Depository and Clearing House.

of interest rates in the money market. Thus, the average repo rate went up to 1.13%, reflecting on BEONIA that reached 0.98% at end-April. BELIBOR rates also moved up, ranging at the close of April from 1.01% for the shortest maturity to 1.74% for the six-month maturity.

In Q1, only two-year securities were auctioned **in the primary market of dinar government securities**. The effective rate at the first auction in January equalled the coupon rate (2.75%), while in February it lost 10 bp, dropping to 2.65%. The effect of growing uncertainty in the global financial market was also visible in the domestic market of dinar securities – in the March auction the effective rate on two-year securities increased by 30 bp, to 2.95%, relative to the previous auction of the same maturity. Two auctions more were held in April for this maturity, and the effective rate made additional gains in the second auction, reaching 3.3%.

The total nominal amount of securities sold in Q1 came at RSD 39.2 bn. On the other hand, as earlier sold securities worth RSD 109.2 bn nominally fell due, the stock of dinar securities sold contracted by RSD 70.1 bn, to RSD 920.6 bn at end-Q1. Just like the quarters before, Q1 saw a decrease in dinar securities owned by non-residents, by RSD 9.3 bn to RSD 167.8 bn at end-March, which can also be associated with the normalisation of monetary policies of leading central banks and heightened uncertainty in international financial markets.

Just like the primary market, **the secondary market** saw a rise in yield rates, and this happened in other emerging economies as well. The yields for the remaining maturity of six and 11 years equalled 4% and 4.3%, respectively, in early March, only to reach around 6% by the end of the month, amid a significant fall in turnover. The rise in yields was also recorded for dinar securities of shorter maturities, though less pronounced, so they averaged from 1.7% for the remaining maturity of two months to 3.3% for the remaining maturity of two years. In Q1, turnover in the secondary market of dinar government securities went further down – by 37.8%, to RSD 71.9 bn.

Three sale auctions of **euro government securities** were organised in Q1, one for the two-year maturity (with the effective rate of 0.75% equal to the coupon rate, all sold-out), the other for the 2.5-year maturity (with the effective rate of 0.81%, below the coupon rate of 0.85%), while at the third auction 25-year securities were offered for the first time, this being the longest maturity of government securities, with the effective rate of 2.5% (coupon rate of 2.3%). Securities nominally worth EUR 311.5 mn were sold, and since earlier sold euro securities

nominally worth EUR 398.4 mn matured in Q1, the stock of euro securities sold decreased to EUR 2,231.4 mn at end-March.

The rise in interest rates in the interbank money market at end-Q1 passed through to interest rates on **new dinar loans**, which edged up mildly. Relative to end-2021, interest rates on dinar household loans edged up by 0.2 pp (8.4% in March), and on corporate loans by 0.7 pp (3.6% in March).

In the segment of dinar corporate loans, interest rate growth was mainly recorded for working capital loans (by 0.7 pp to 3.8%), and to a lesser extent also for other non-categorised loans (by 0.2 pp to 2.8%). As for dinar household loans, interest rates increased for cash loans (by 0.4 pp to 9.0%, thus returning close to their last year's average), and for consumer loans (by 0.5 pp to 2.0%).

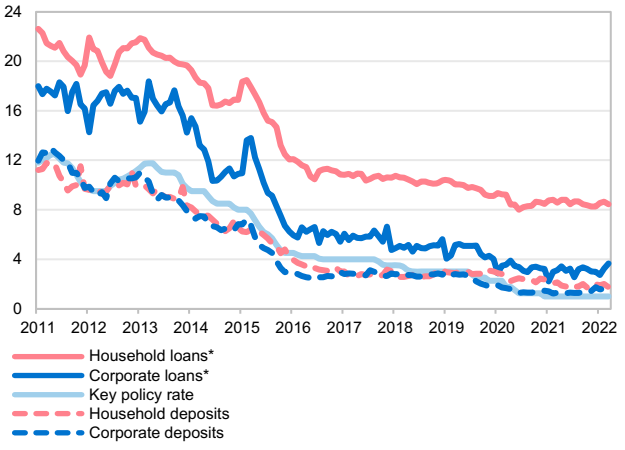
The weighted average interest rate on **euro** corporate loans decreased by 0.2 pp relative to December 2021, to 2.3% in March. The interest rate fall was mainly led by the fall in interest rate on working capital loans (by 0.3 pp to 2.1%), but also by the significantly increased share of this loan category in total corporate lending, given that the rate on working capital loans is lower than the average interest rate on corporate loans. The average interest rate on euro-indexed household loans inched up by 0.1 pp to 3.5% as interest rates on consumer and other non-categorised loans increased, while the interest rate on euro-indexed housing loans remained unchanged from August 2021, at 2.6%.

Relative to end-2021, the interest rate on household **savings** in dinars dropped by 0.3 pp to 1.7% in March, while the interest rate on euro savings remained unchanged at 0.9%. The interest rate on term euro deposits of corporates decreased by 0.1 pp relative to December to 0.5%, while the interest rate on term dinar deposits of corporates gained 0.1 pp, measuring 1.9% in March.

Risk premium

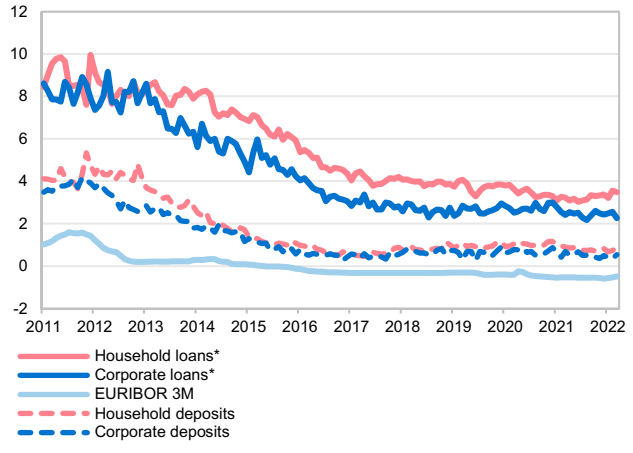
In Q1, global risk premium as well as risk premia of the observed emerging economies (including Serbia) were driven primarily by the escalation of geopolitical tensions, the outbreak of the crisis in Ukraine and the Western sanctions against Russia. This increased further risk aversion during February, which had been present in the international financial markets in the previous period as well due to the uncertainty over the pandemic and start of monetary policy normalisation by leading central banks. Despite the fact that geopolitical tensions did not

Chart IV.1.5 **Interest rates on new dinar loans and deposits**
(weighted average values, p.a., in %)



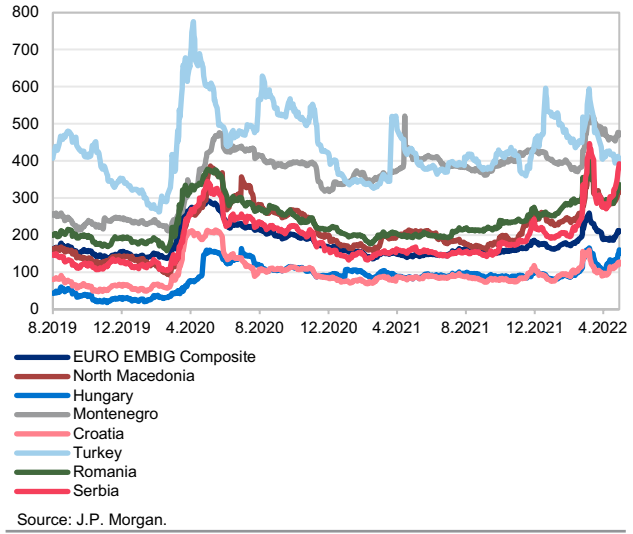
Source: NBS.
* Excluding revolving loans, current account overdrafts and credit card debt.

Chart IV.1.6 **Interest rates on new euro and euro-indexed loans and deposits**
(weighted average values, p.a., in %)



Sources: European Banking Federation and NBS.
* Excluding revolving loans, current account overdrafts and credit card debt.

Chart IV.1.7 **Risk premium indicator for euro-denominated debt – EURO EMBIG**
(daily data, in bp)



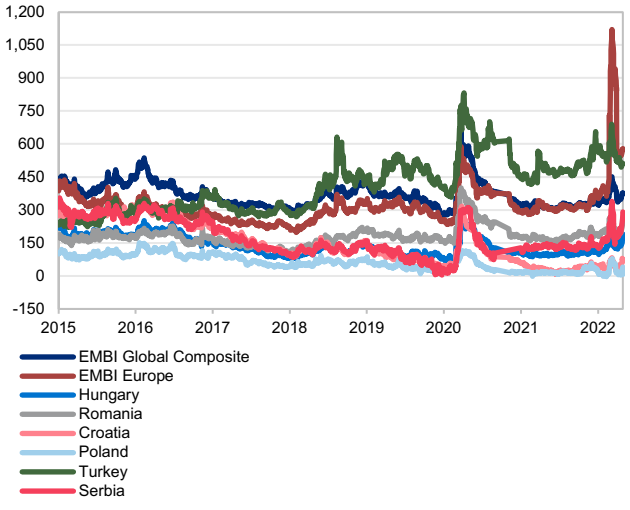
Source: J.P. Morgan.

Table IV.1.1 **Credit rating**
(change of rating and outlook)

	2017	2018	2019	2020	2021
S&P	BB /stable[4)]	BB /positive[4)]	BB+ /positive[4)]	BB+ /stable[2)]	BB+ /positive[4)]
Fitch	BB /stable[4)]		BB+ /stable[3)]		
Moody's	Ba3 /stable[1)]		Ba3 /positive[3)]		Ba2 /stable[1)]

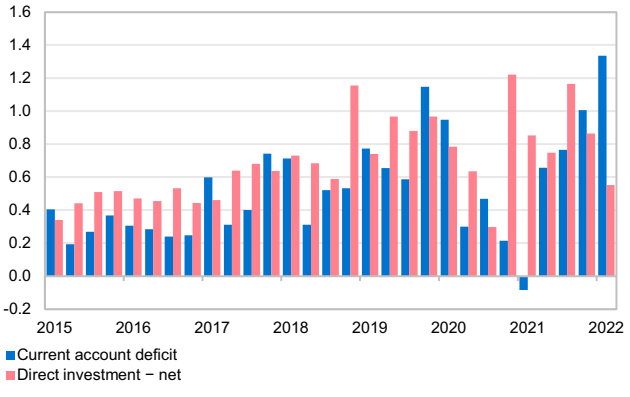
Source: NBS.
[1)] March, [2)] May, [3)] September, [4)] December.

Chart IV.1.8 **Risk premium indicator for dollar-denominated debt – EMBI**
(daily data, in bp)



Source: J.P. Morgan.

Chart IV.1.9 **Current account deficit and net FDI inflow**
(in EUR bn)



Source: NBS.
Note: Preliminary data for Q1 2022.

calm down, March saw some downward adjustment to the global risk premium, though it remained higher than at end-2021.

EURO EMBIG, Serbia's risk premium for euro-denominated debt, increased in Q1 by 79 bp, to 275 bp. At the same time, EURO EMBIG Composite for euro-denominated debt, went up in Q1 by 26 bp reaching 189 bp at end-March. Serbia's dollar risk premium also rose in Q1 (by 56 bp, to 195 bp), continuing to move considerably below EMBI Composite for dollar-denominated debt, which went up by 17 bp, to 347 bp in Q1.

In February, Fitch kept Serbia's credit rating at BB+, with a stable outlook for its improvement to investment grade. Made amid strengthened geopolitical tensions, such decision only confirmed additionally the adequacy of economic policies in Serbia. Explaining the decision, Fitch emphasised the credible macroeconomic policy framework, prudent fiscal policy, stronger governance and a higher economic development level compared to countries with a similar credit rating. Banking sector stability was also stressed, as well as greater resilience of Serbia to shocks from the international environment.

Foreign capital inflow

In Q1, capital inflow was generated through FDI and increased external credit borrowing of all sectors. These inflows partly covered the outflows on account of trade loans, bank funds in accounts abroad and portfolio investment.

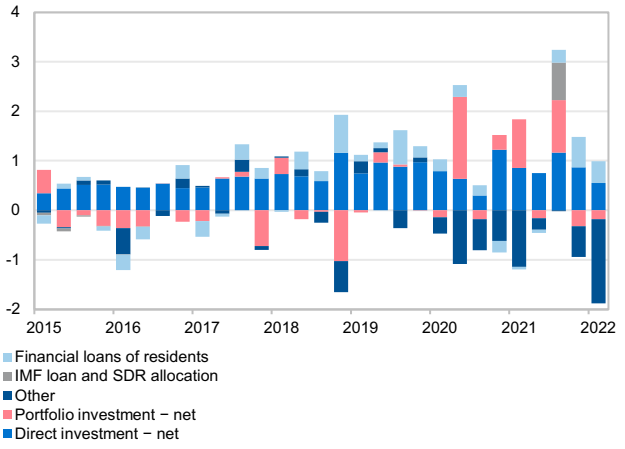
According to preliminary data, Q1 saw a **net FDI inflow** of EUR 551.1 mn. For the most part, FDI to Serbia that amounted to around EUR 593 mn, included investments from China, followed by those from Great Britain, Austria and Switzerland. Sector-wise, these investments were mostly channelled to manufacturing and construction. At the same time, finances recorded an outflow due to the change in ownership of some banks in the domestic market, including the takeover of Sberbank Srbija a.d. Beograd, which was a part of a banking group connected with Russia, whose operations were affected by the newly emerged circumstances due to the escalation of geopolitical tensions. The takeover was conducted by a domestic bank, upon obtaining the necessary approvals by the NBS and competent authorities.

The geopolitical tensions and escalation of the Ukraine crisis, as well as the beginning of normalisation of monetary policies of leading central banks, took their toll

on **portfolio investment** flows. Q1 saw a net capital outflow of EUR 184.5 mn, mainly due to the sale of government securities in the secondary market. The outflow was also generated based on maturing of government securities owned by non-residents, while at the same time, residents reduced their investments into securities in foreign markets.

Net resident foreign liabilities under **financial loans** in Q4 increased by almost EUR 440 mn amid increased borrowing by all sectors (enterprises, government and banks). Domestic banks increased foreign account balances, so that an outflow of EUR 784.6 mn was registered under **cash and deposits**. An outflow was also generated under **trade loans** (EUR 901.3 mn) mostly due to uncollected exports.

Chart IV.1.10 **Structure of the financial account**
(in EUR bn)



Source: NBS.
Note: Preliminary data for Q1 2022.

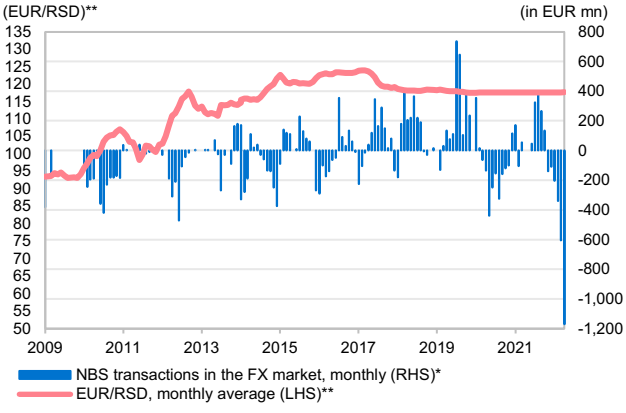
Trends in the FX market and exchange rate

Depreciation pressures, present since Q4 2021 due to higher energy imports, were additionally intensified in Q1 this year amid geopolitical tensions and escalation of the crisis in Ukraine. Despite that, owing to NBS interventions, relative stability of the dinar against the euro was preserved in Q1. Observed at period end, Q1 saw a slight weakening of the dinar against the euro by 0.1% and against the dollar by 1.5%, due to the depreciation of the euro against the dollar.

The rise in the demand for foreign currency in Q1 was driven primarily by domestic enterprises - energy importers, partly on account of higher global energy prices. Escalation of the crisis in Ukraine pushed up European emerging economies' risk premia, which in turn increased non-residents' demand for foreign currency in the domestic market in late February. However, the demand abated considerably in the course of March. On the other hand, natural persons bought a record amount of foreign cash in March against the backdrop of heightened global uncertainty. Though the supply of foreign currency was rising from month to month, mostly as a reflection of the increase in FX-indexed bank assets[4] owing to higher lending, it was not sufficient to cover rising demand for foreign currency.

To preserve relative stability of the exchange rate of the dinar against the euro in such circumstances, the NBS intervened in the IFEM in Q1 by selling EUR 2,115.0 mn

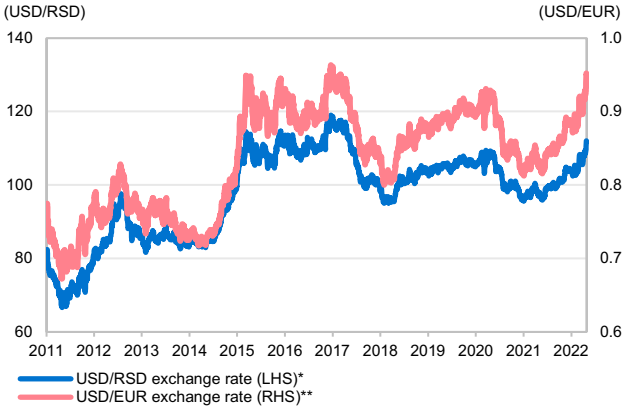
Chart IV.1.11 **Dinar exchange rate and NBS transactions in the FX market**



Source: NBS.
* + net purchase; - net sale.
** EUR 1 in RSD.

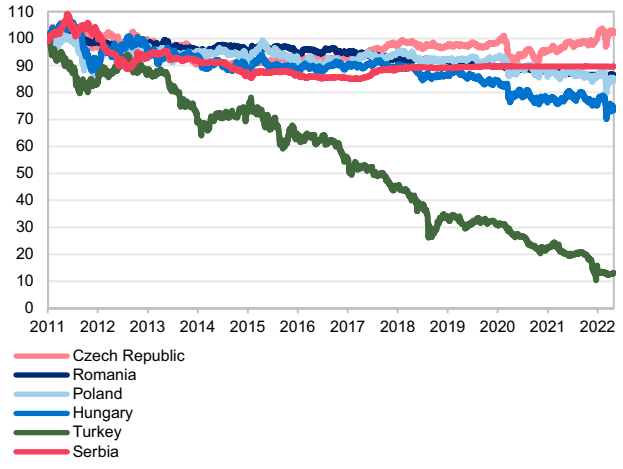
[4] Aiming to balance their long open foreign currency positions, thus reducing exposure to foreign exchange risk, banks sell foreign currency, which results in the strengthening of the dinar.

Chart IV.1.12 **Movements in USD/RSD and USD/EUR exchange rates**



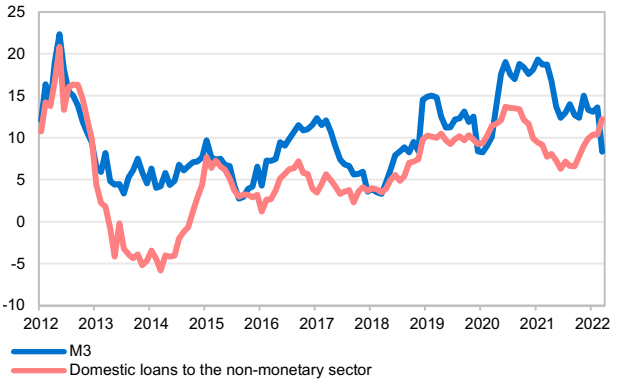
Source: NBS.
* USD 1 in RSD.
** USD 1 in EUR.

Chart IV.1.13 **Exchange rates of selected national currencies against the euro***
(daily data, 31 December 2010 = 100)



Sources: NBS and websites of central banks.
* Growth indicates appreciation.

Chart IV.2.1 **Domestic loans to the non-monetary sector and M3**
(nominal y-o-y rates, in %)



Source: NBS.

net, of which somewhat more than a half relating to the sale of foreign currency in March.

The average trading volume in the IFEM[5] equalled EUR 27.1 mn in Q1 and was by EUR 7.0 mn lower than in Q4 2021. In monthly terms, the highest average value of turnover was recorded in February (EUR 31.9 mn), and the lowest in March (EUR 22.7 mn). In addition, Q1 saw a decrease in the trading volume at regular FX swap auctions, primarily two-week auctions, where EUR 12.0 mn were bought and sold each to banks (vs. EUR 106.0 mn in Q4 2021). Three-month auctions also witnessed a decrease in trading volume where EUR 5.0 mn were bought and sold each (vs. EUR 15.0 mn in Q4 2021).

The currencies of inflation targeting countries in the region recorded divergent movements against the euro in Q1. Observed at period end, only the Czech koruna gained in value against the euro (1.9%), as a result of considerable monetary policy tightening in the previous period, while the value of the Romanian leu remained unchanged. In contrast, the Hungarian forint depreciated by 0.2%, the Polish zloty by 1.1%, and the Turkish lira by 10.0%.

2 Money and loans

The slump in monetary aggregates, typical for the start of the year, became even more pronounced as of late February, amid heightened uncertainty fuelled by the escalating political tensions, while domestic credit activity continued steadily up, supported by lending to corporates, as well as to households.

Money

Dinar money supply M2 contracted in Q1 by 9.0%, while M3, including also FX deposits, edged down by 3.0%. The decrease was in one part triggered by seasonal factors and in the other by the elevated uncertainty in the international financial market due to the escalation of geopolitical tensions.

In terms of individual category, the largest decrease was recorded for more liquid components. Dinar **sight deposits** went down by RSD 100.1 bn in Q1, with household deposits accounting for almost 70% of the decrease. Corporate transaction account balances declined by RSD 39.8 bn in Q1. On the other hand, other sectors aggregately recorded an increase in transaction

[5] Excluding the NBS.

deposits by RSD 6.2 bn, most notably the deposits of other financial organisations.

Term dinar deposits decreased by RSD 40.2 bn in Q1, almost equally for corporates, households and other financial organisations. After several years of continuous growth, household dinar savings recorded a temporary fall as of late February, amounting to RSD 87.9 bn at end-March. The outbreak of conflict in Ukraine heightened risk aversion and triggered a temporary withdrawal of savings from banks. Nevertheless, it is important to note that financial stability and relative stability of the exchange rate were preserved even in such conditions. The pressures driving dinar savings withdrawal abated in April.

Contrary to dinar deposits, **FX deposits** gained EUR 380.4 mn in Q1. Corporate deposits increased the most (EUR 254.6 mn) thanks to FX inflows from exports, FDI and corporate borrowing abroad. Household FX savings added EUR 69.9 mn in Q1, reaching EUR 12.4 bn at end-March.

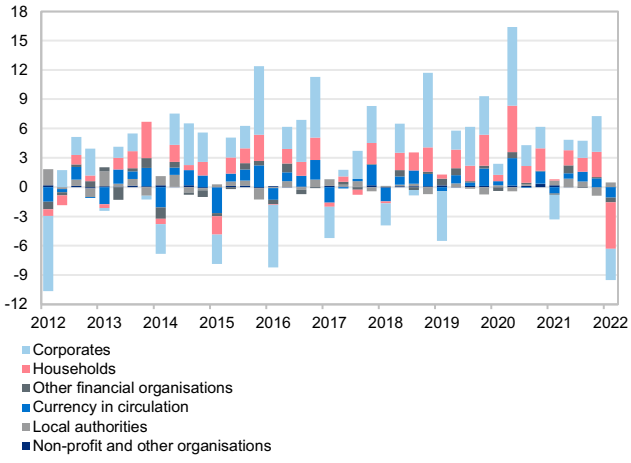
In y-o-y terms, Q1 saw a continued slowdown in money supply growth rates. M1, M2 and M3 recorded y-o-y growth rates of 8.1%, 6.2% and 8.3%, respectively in March, receiving tailwinds from the stable rise in lending activity.

Loans

Total domestic loans, excluding the exchange rate effect, sped up their y-o-y growth to 12.1% in March. The greatest contributions came from corporate loans (7.2 pp), followed by household loans (5.0 pp), their respective growth measuring 13.9% and 10.7% y-o-y in March.

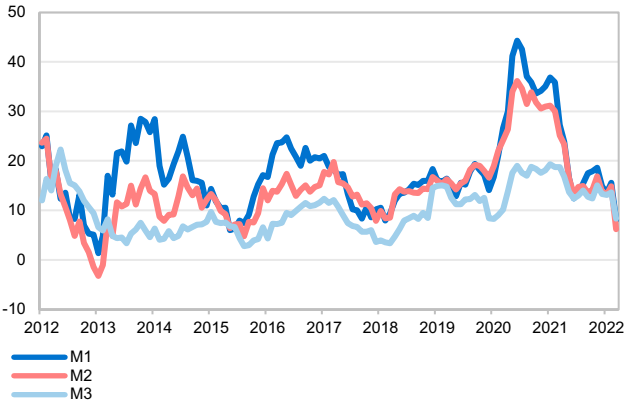
At Q1 level, excluding the exchange rate effect, **corporate loans** rose by RSD 64.1 bn, which is a relatively high increase, seasonally untypical for the start of the year. Almost the whole increase referred to liquidity and working capital loans (RSD 57.6 bn), whose share in total corporate loans went up to 48.0% in March. An increase was also recorded for non-categorised loans (by RSD 8.3 bn) and current account overdrafts (by RSD 2.9 bn). On the other hand, investment loans decreased by RSD 4.5 bn in Q1 and their share in total corporate loans to 39.7% in March. Other types of loans experienced relatively minor changes compared to their balance at end-2021. In terms of company size, loans approved to micro, small and medium-sized enterprises made up 63.9% of total

Chart IV.2.2 **Contributions to quarterly growth in M2, by sector**
(in pp)



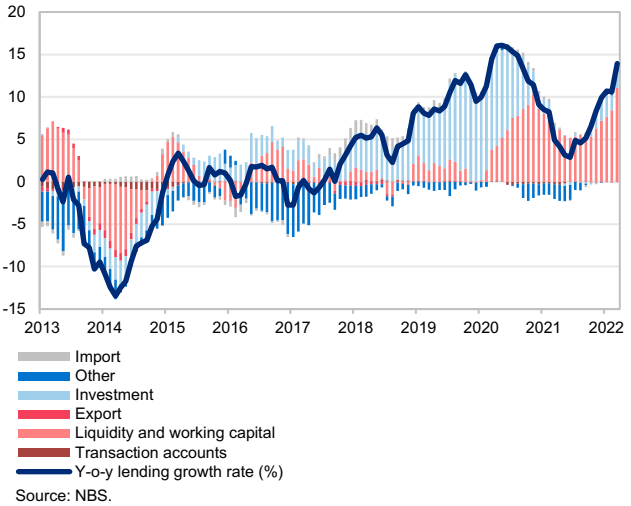
Source: NBS.

Chart IV.2.3 **Monetary aggregate movements**
(nominal y-o-y rates, in %)



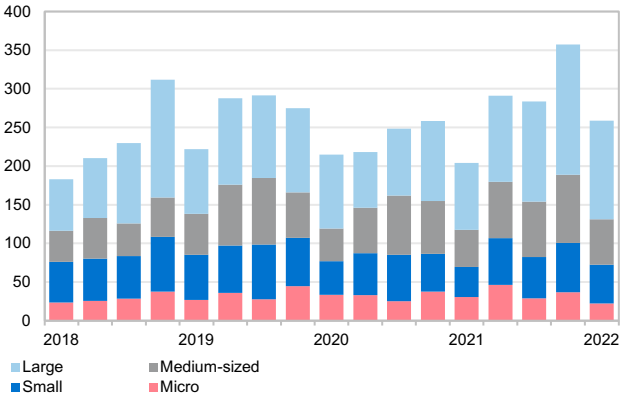
Source: NBS.

Chart IV.2.4 **Contributions to y-o-y corporate lending growth**
(in pp, excluding the exchange rate effect)



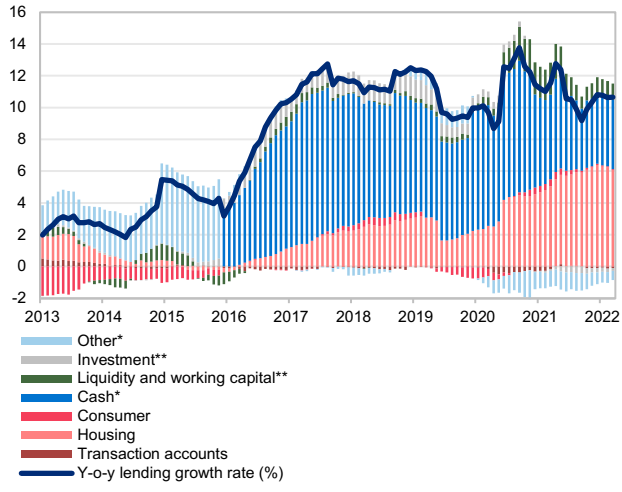
Source: NBS.

Chart IV.2.5 **Structure of new corporate loans, by enterprise size**
(in RSD bn)



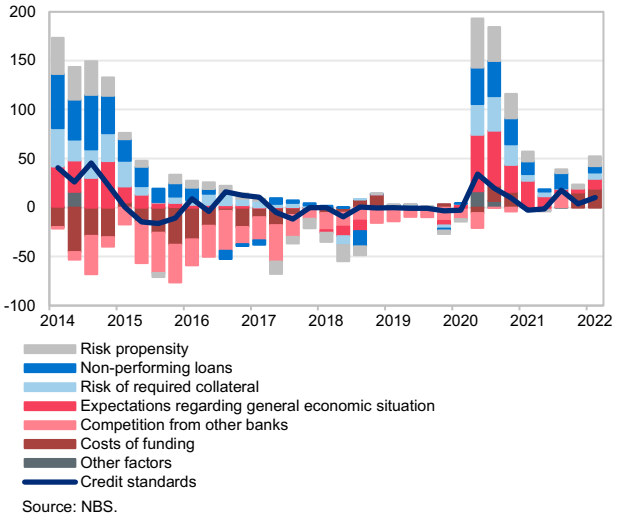
Source: NBS.

Chart IV.2.6 **Contributions to y-o-y household lending growth**
(in pp, excluding the exchange rate effect)



Source: NBS.
* Until December 2015, the contribution of cash loans is shown within the contribution of other loans.
** Loans extended to entrepreneurs.

Chart IV.2.7 **Change in corporate credit standards and contributing factors**
(in net %)



Source: NBS.
Note: Growth indicates the tightening and decline indicates the easing of credit standards.

corporate loans in March. A faster growth in FX-indexed corporate receivables compared to dinar receivables dragged the dinarisation of corporate receivables down by 0.5 pp, to 23.5% in March.

The volume of new corporate loans in Q1 amounted to RSD 258.8 bn, up by 26.8% from the same period last year. In Q1, corporates again mostly used liquidity and working capital loans (64.2%), with somewhat less than a half of these loans being channelled to micro, small and medium-sized enterprises. Investment loans accounted for 19.0% of new corporate loans in Q1, with over 80% of these loans being absorbed by the micro and SME segment of the market.

Household loans, excluding the exchange rate effect, rose by RSD 23.3 bn in Q1. The bulk of the increase referred to housing loans (RSD 14.1 bn) whose y-o-y growth in March amounted to 16.2%. In Q1, cash loans rose by RSD 8.8 bn, and liquidity and working capital loans approved to entrepreneurs by RSD 2.9 bn. Non-categorised loans edged down by RSD 2.6 bn, while other types of loans recorded a relatively smaller increase than at end-2021. The rise in FX-indexed receivables, due to housing loans growth, was faster than the rise in dinar receivables, which led to a lower share of dinar household receivables – down by 0.2 pp, to 54.4% in March.

In the composition of household loans in March, the dominant categories were cash (44.0%) and housing loans (39.3%).

New household loans reached RSD 127.8 bn in Q1, increasing by 1.3% y-o-y. Cash loans accounted for 59.3% of new loans in Q1, while housing loans made up almost a quarter of new household loans. New housing loans in Q1 amounted to RSD 29.7 bn, signalling a continued rise in the demand for housing loans, recorded also in past periods.

The results of the NBS April lending survey[6] show that in Q1 banks continued to mildly tighten corporate credit standards due to higher cost of financing, uncertainty as to the general economic situation and consequently lower risk appetite. On the other hand, banks assessed that in Q1 household credit standards eased for the fourth consecutive quarter, primarily owing to interbank competition, labour market rebound and factors associated with the real estate market. At the same time, credit demand in both sectors continued up in Q1.

[6] The NBS conducts the survey since the beginning of 2014.

Financing of working capital and capital investments were the dominant factors behind corporate loan demand, while the main drivers in the household segment were refinancing needs and real estate purchases.

Gross **NPL ratio** remained below the pre-crisis level. It equalled 3.4% in March, down by 0.1 pp from end-2021. Such movements indicate that NBS and Government measures were timely, preventing major negative effects on corporates and households, and thus also on financial stability. Compared to end-2021, gross NPL ratio in the household sector[7] edged up mildly (by 0.1 pp, to 4.2% in March), while decreasing in the corporate sector[8] by 0.4 pp, to 2.4%. NPL coverage remained high – in March allowances for impairment of total loans stood at 89.2% of NPLs and allowances for impairment of NPLs at 56.3% of NPLs.

Capital adequacy ratio[9] at end-Q1 measured 20.0%, indicating high capitalisation (regulatory minimum at 8.0%) and resilience of the banking sector to external and domestic risks.

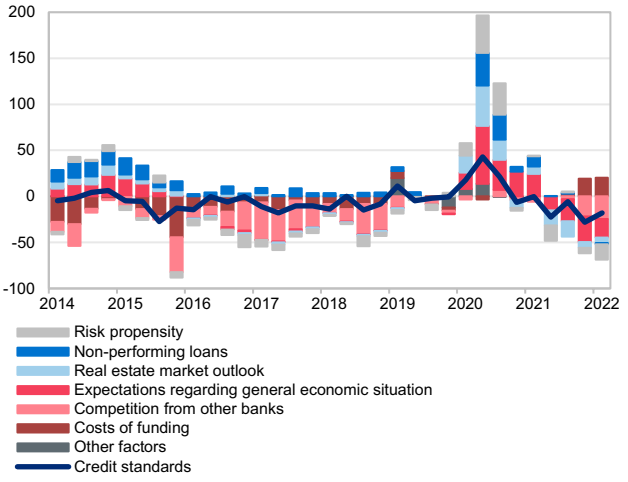
3 Aggregate demand

Domestic demand

Rising domestic demand, based on consumption and investment, provided the key contribution to economic growth, which amounted to 4.3% y-o-y in Q1, according to a SORS estimate.

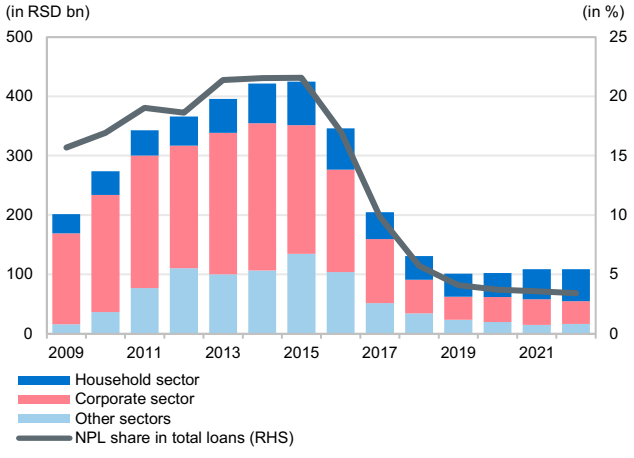
Private consumption growth continued also in Q1, but due to the wearing-off of the base effect, it slowed down from 7.2% y-o-y in Q4 2021 to 7.0% in Q1 2022. The outbreak of the Ukraine conflict and consequently heightened uncertainty had a certain psychological effect on rising household consumption, primarily due to the procurement of non-durable consumer goods, food and petroleum products. This is indicated by the almost 20% y-o-y increase in the real retail trade turnover during March, which resulted in a quarterly growth of 10.6% y-o-y. Moreover, waning of the coronavirus pandemic and further relaxation of containment measures spurred activity growth in other services sectors, as testified by the rise in turnover in catering by 27.9% y-o-y (the latest available data for January), as well as by the rising

Chart IV.2.8 **Change in household credit standards and contributing factors**
(in net %)



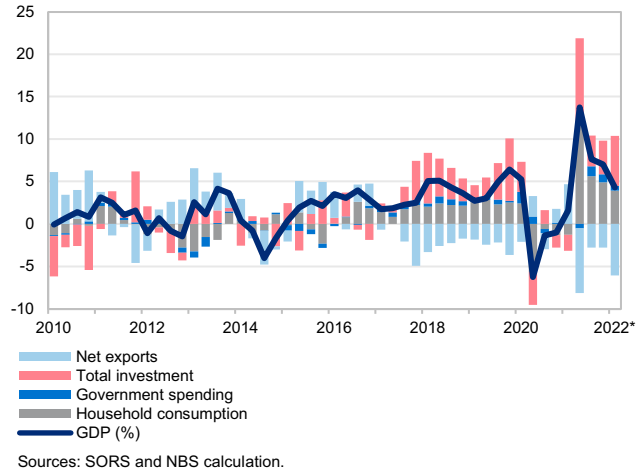
Source: NBS.
Note: Growth indicates the tightening and decline indicates the easing of credit standards.

Chart IV.2.9 **NPL share in total loans, gross principle**



Source: NBS.

Chart IV.3.1 **Contributions to y-o-y GDP growth rate, expenditure side**
(in pp)



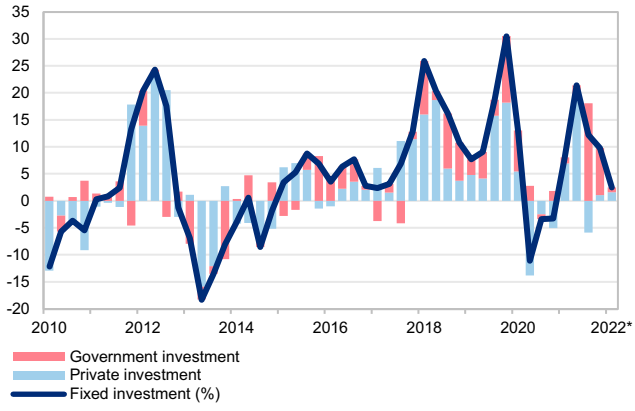
Sources: SORS and NBS calculation.
* NBS estimate for Q1 2022.

[7] With entrepreneurs and private households included, the share of NPLs was 4.3% in March.

[8] Including companies and public enterprises. Looking at companies only, NPL share in total loans in March stood at 2.6%.

[9] The regulatory framework of Basel III is applied since 30 June 2017.

Chart IV.3.2 **Fixed investment**
(y-o-y growth, in pp)



Sources: SORS and NBS calculation.
* NBS estimate for Q1 2022.

Table IV.3.1 **Movement in key indicators and sources of household consumption**
(real y-o-y growth rates, in %)

	2021			2022
	Q2	Q3	Q4	Q1
Household consumption	**17.1**	**8.1**	**7.2**	**7.0** *
Indicators				
Retail trade	19.1	7.8	8.4	10.6
Catering turnover	115.0	100.0	118.5	27.9 ***
Number of domestic tourists	111.1	5.2	39.6	27.7
Number of overnight stays of domestic tourists	88.4	3.6	23.5	18.8
Consumer goods import (BEC classification), nominal	23.9	5.5	12.3	21.2
Sources				
Total wage bill, nominal	13.9	12.5	14.8	16.1 **
Net remittances inflow, nominal	34.4	4.9	14.8	16.9
Stock of loans intended for consumption, nominal	11.1	6.9	6.7	6.8

Sources: SORS and NBS calculation.
* NBS estimate.
** January–February.
*** January.

Table IV.3.2 **Investment indicators**

	2021			2022
	Q2	Q3	Q4	Q1
Real y-o-y growth rates (in %)				
Fixed investment (national accounts)	21.4	12.2	9.8	2.5 *
Construction (national accounts)	14.6	15.7	10.9	-5.0 *
Government investment	7.7	93.1	26.4	4.5 *
Number of construction permits issued	54.7	31.5	34.4	23.4 **
Production of construction material	28.7	0.4	-0.2	3.5
Value of works performed	15.0	15.1	10.4	-5.9
Import of equipment, nominal	53.1	12.2	13.3	8.0
Production of domestic machinery and equipment	26.4	12.6	7.7	7.1
Finished product inventories in industry	2.4	2.4	4.0	-0.2

Sources: SORS and NBS calculation.
* NBS estimate.
** January–February.

number of overnight stays of domestic tourists by 18.8% y-o-y. A positive contribution to economic growth also stemmed from the pick-up in **government consumption** (3.5% y-o-y with a 0.6 pp contribution to GDP).

The sources of private consumption suggest that the rise was mainly led by the higher wage bill, which in the period January–February went up by 16.1% y-o-y, primarily on account of higher wages, and to a lesser degree, employment growth. In Q1, remittances from abroad also went up by around 17% y-o-y, which can be associated with further relaxation of containment measures in Europe and greater labour force mobility. Interest rates remained favourable, so the y-o-y rise in loans intended for consumption stayed unchanged at around 7%, as in the previous two quarters. In addition, funds for consumption also came from the one-off payment of cash to pensioners and citizens under 30.

Further improvement in the investment environment sustained the **rise in fixed investment**, which, according to our estimate, equalled 2.5% y-o-y in Q1, supported by both private and government investment. This is indicated by the still high level of activity in construction, based mainly on the implementation of government-financed infrastructure projects. In addition, the rise in investment is indicated by the increased production of machinery and equipment in Q1 by 7.1% y-o-y and the rise in equipment imports by 8% y-o-y.

Private sector investment growth was financed primarily from own sources in Q1, and somewhat less by new investment loans. On the other hand, the FDI inflow of EUR 551 mn in Q1 was lower than in the same period last year, but it remained diversified by project and directed mostly at tradable sectors.

Inventories also gave a positive contribution, mainly on account of temporary restrictions on the exports of primary agricultural commodities and strategic energy and food stockpiling.

According to our estimate, quarterly economic growth (0.6% s-a) was driven by rising domestic demand, primarily personal consumption and inventories, followed by government investment.

Net external demand

We estimate that net exports provided a negative contribution to y-o-y GDP growth in Q1 (6.1 pp), mainly because of the increased volume of energy imports which

resulted in a faster y-o-y rise in real imports than in exports of goods and services (18.5% vs. 10.3%).

Commodity exports, expressed in euros, recorded robust growth in Q1 (31% y-o-y, according to the balance of payments data) amid slackening external demand and persistent disruptions to global supply chains, which worsened further due to the Ukraine conflict and new counter-pandemic measures in China. The growth was primarily led by manufacturing exports, which went up by 25.9% y-o-y and were widely dispersed across sectors (21 out of 23), with the largest contribution coming from base metals, food products, chemical products, rubber and plastic products, petroleum products, as well electric equipment. High nominal export growth resulted partly from the increase in the exported quantities and partly from higher export prices. Mining, whose exports were 11 times higher y-o-y, also kept contributing to export growth, while agricultural commodity exports were lower than a year ago, partly due to the temporary restrictions on the exports of cereals.

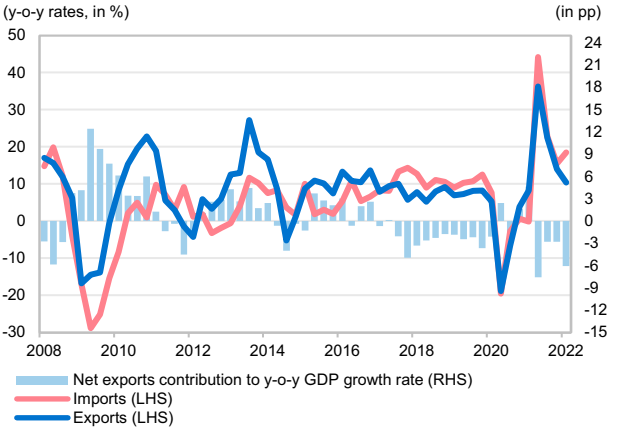
Commodity imports, expressed in euros, went up by 47.7% y-o-y, driven mainly by the higher energy imports, which measured EUR 1,610.4 mn in Q1 and were by EUR 1,199.6 mn higher than a year ago. Of that, compared to the same period of the previous year, the import of gas was higher by EUR 645 mn, oil and petroleum products by EUR 403.5 mn, electricity by EUR 94.4 mn and coal by EUR 56.7 mn. The largest part of gas and oil import growth (around 85%) resulted from the hike in import energy prices, while the remaining part relates to higher import quantities. Such movements are also confirmed by the BEC classification, which reveals that import growth benefited the most from intermediate goods (68.4% y-o-y), a category which includes energy. Contributions also came from consumer goods (21.2% y-o-y) and equipment (8% y-o-y), indicating a continued rise in personal consumption and investment. This is also confirmed by the classification of imports by the EU methodology, as energy and intermediate goods provided the largest contribution to the rise in imports, followed by consumer and capital goods.

Foreign **trade in services** continued to increase in Q1, with more pronounced y-o-y growth in imports (45.8%) than in exports (32%), which caused the surplus to decline by 4.6% y-o-y to EUR 420.3 mn.

The commodity exports-to-imports ratio[10] measured 75.8% in March, or 84.3% if services are included.

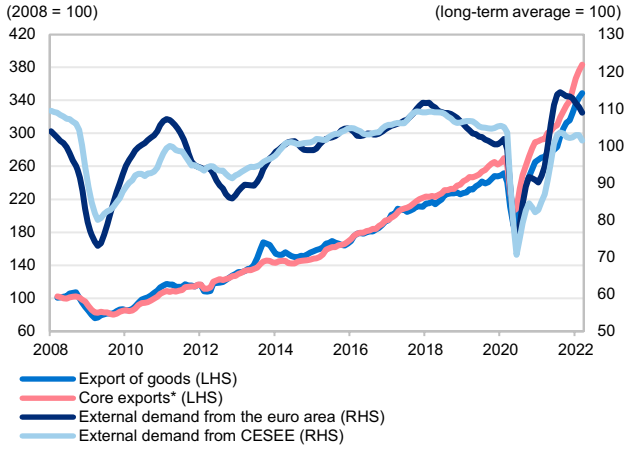
[10] Measured by the 12-month moving average.

Chart IV.3.3 **Export and import of goods and services**
(in previous-year constant prices, ref. 2010)



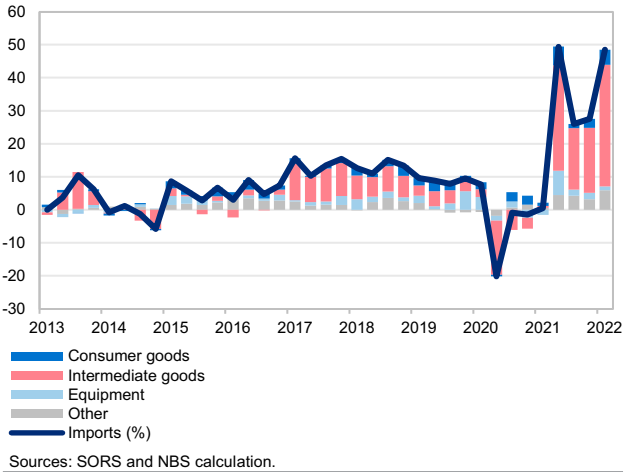
Sources: SORS and NBS calculation.
Note: NBS estimate for Q1 2022.

Chart IV.3.4 **Movement in external demand indicators for Serbian exports**
(3M moving average, s-a)



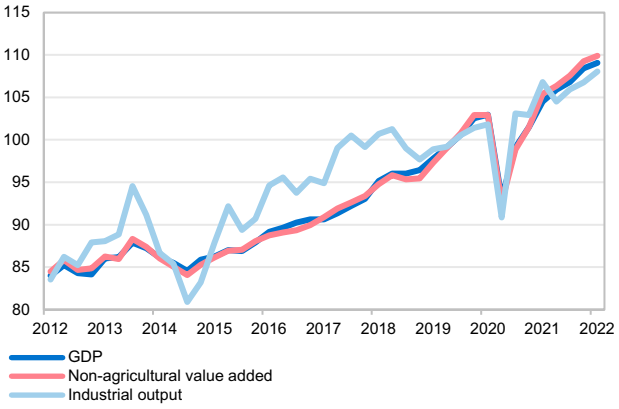
Sources: European Commission, SORS and NBS.
* Core exports are total exports excluding the export of agricultural products, base metals, motor vehicles, petroleum products and electricity.

Chart IV.3.5 **Movement of key import components**
(contributions to y-o-y growth, in pp)



Sources: SORS and NBS calculation.

Chart IV.4.1 **Economic activity indicators**
(s-a, 2019 = 100)



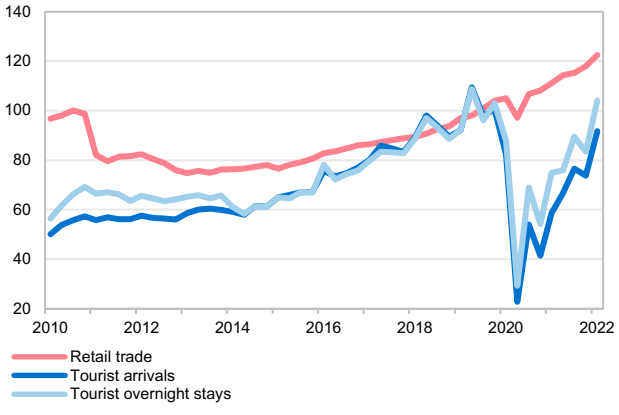
Sources: SORS and NBS calculation.

Table IV.4.1 **Contributions to y-o-y GDP growth**
(in pp)

	2021				2022
	Q1	Q2	Q3	Q4	Q1*
GDP (in %, y-o-y)	**1.5**	**13.7**	**7.6**	**7.0**	**4.3**
Agriculture	-0.3	-0.3	-0.4	-0.4	0.0
Industry	0.8	3.1	0.5	0.9	0.3
Construction	0.7	0.8	0.8	0.7	-0.2
Services	0.6	7.7	5.2	4.6	3.2
Net taxes	-0.2	2.8	1.5	1.3	0.9

Sources: SORS and NBS calculation.
* NBS estimate.

Chart IV.4.2 **Service sector indicators**
(s-a, 2019 = 100)



Sources: SORS and NBS calculation.

4 Economic activity

Despite the escalation of geopolitical tensions caused by the conflict in Ukraine, which started to reflect on euro area economic activity, Serbia maintained the relatively high rate of economic growth in Q1 (4.3% y-o-y). Q-o-q growth continued as well, measuring 0.6% s-a, in our estimate, driven by industry, and services, though to a smaller extent.

As in previous quarters, in Q1, the largest contribution to economic growth came from **services** (3.2 pp). Cumulatively, activity growth in services is estimated at around 6% y-o-y. This is also confirmed by indicators for some services. Real retail trade turnover increased by 10.6% y-o-y, while turnover in tourism, measured by the number of overnight stays, increased by 40.6% y-o-y, largely owing to foreign tourists in a globally improved epidemiological situation.

Despite heightened uncertainty and lower external demand caused by the outbreak of the conflict in Ukraine, **industrial production** growth continued in Q1, reaching 1.5% y-o-y. It is worth noting that the increase in the volume of industrial production was particularly pronounced in March, which at the quarterly level offset a slight y-o-y drop recorded in the first two months of 2022. The rise in the volume of industrial production by 1.9% y-o-y was driven by manufacturing and mining (contribution of 3.0 pp and 2.5 pp, respectively), while problems in the power system in the prior period reduced the activity in the power supply sector by 19.1% y-o-y in Q1, providing a negative contribution to the volume of industrial production of over 3 pp. Within manufacturing, activity intensified in 17 out of 23 branches in Q1, with a particularly pronounced rise in the volume of production of petroleum products which accounts for a third of the growth in manufacturing as a result of the base effect caused by the last year's overhaul in oil industry. Further, a high contribution to manufacturing growth stemmed from the production of metal products, base metals, chemical products and food.

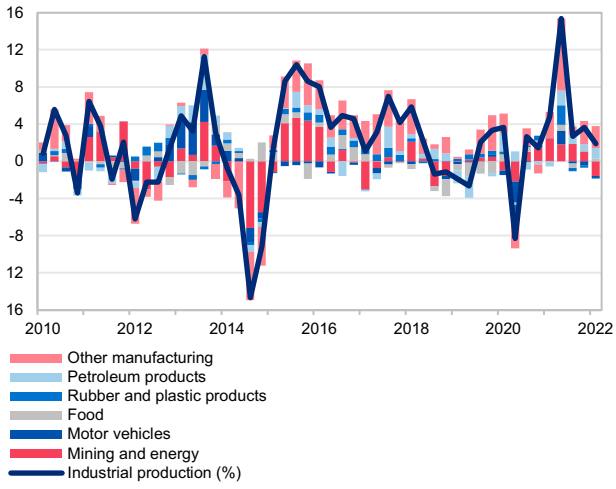
We estimate that construction activity shrank by 5% y-o-y in Q1, as indicated by the preliminary SORS data about the reduction in the value of executed construction works by 5.9% y-o-y. The slump in activity is primarily attributable to the last year' high base, and this conclusion is supported by other construction indicators. Namely, intensive implementation of government-financed infrastructure projects continued in Q1, as indicated by the rise in government capital expenditure of 3.5% y-o-y.

Further, a continued increase in residential property development primarily by the private sector was recorded, as testified by the double-digit rise in the number of issued construction permits for residential property (14.6% y-o-y in January–February 2022). The production of construction materials also went up by 3.5% y-o-y, with an over 50% y-o-y rise in the import of construction materials. Employment in construction also went up by 3.4% y-o-y.

In the absence of more precise estimates, except for data on total cropped areas during the autumn sowing, which are higher by 3.5% compared to the previous season, i.e. by 5.8% for wheat, we still assume that this will be an average agricultural season which should result in **agricultural production** growth of 2.5% at the level of the year, i.e. around 1% y-o-y in Q1.

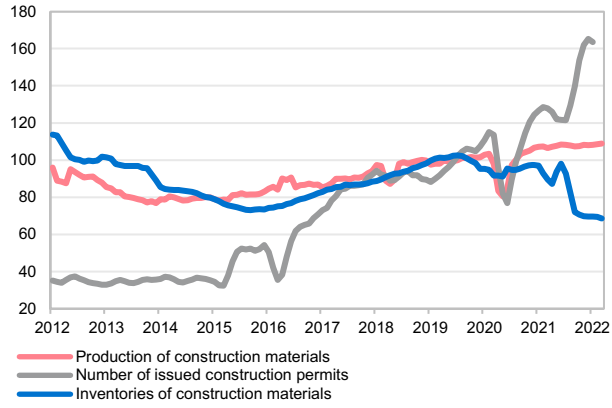
In q-o-q terms, economic activity is estimated to have gone up by 0.6% s-a, driven mostly by industry, and less by services, while the level of activity in construction remained unchanged from Q4 2021.

Chart IV.4.3 **Contributions to y-o-y industry growth rate**
(in pp)



Sources: SORS and NBS calculation.

Chart IV.4.4 **Construction activity indicators**
(quarterly averages s-a, 2019 = 100)



Sources: SORS and NBS calculation.

Text box 2: Macroeconomic effects of the Ukraine conflict on Serbia

The escalation of geopolitical tensions in 2022 further heightened the effects of the global energy crisis, pushing up the prices of energy, notably oil and natural gas, to their highest levels since 2008. Economic challenges facing almost all countries across the world amid higher cost-push pressures and disruptions to global supply chains amplified further with the outbreak of the conflict in Ukraine in late February, which resulted in the imposition of Western sanctions on Russia. The global growth outlook deteriorated further and the risks of stagflation increased due to rising inflation. It is becoming increasingly certain that the strength and persistence of the crisis effects on global economic trends, and thus return to normalcy, will greatly depend on the duration of the conflict in Ukraine and sanctions against Russia.

It is currently hard to precisely quantify the economic consequences of the new crisis, but it is known that the key impact channels will include:

• the level of prices and availability of energy products, and the prices of primary commodities (cereals, metals, industrial raw materials) at the global level;

• the volume of external trade due to lower external demand and problems in global supply chains;

• the level of investment and consumption amid elevated risk aversion, dented investment and consumer confidence, and smaller disposable income.

The strongest negative effects of the Ukraine crisis will most probably be felt by European countries, which are also our key economic partners, primarily due to their high energy dependence on Russia. The energy price hike accelerated further with the outbreak of the conflict in Ukraine as Russia is one of the largest exporters of natural gas and the second largest global oil exporter. Although sanctions against the Russian energy sector have still not been introduced, global oil and gas prices are also driven by mounting uncertainty as to the future availability of oil and gas in European countries, which pushes up the demand for these energy products. The aggravation of the political situation and the intention of these countries to reduce their energy dependence on Russia further deepens instability in the global energy market and contributes to price surges, notably as they cannot ensure in the short run an alternative for the gas they import from Russia. However, the impact of the current energy crisis is not evenly distributed across Europe as the countries whose energy sources depend largely on imports from Russia – notably Central and Southeast European ones – are experiencing much stronger pressures (Tables O.2.1 and O.2.2). Serbia also belongs to a group of countries that are highly energy-dependent on imports from Russia. The share of oil and gas imports from Russia in total energy imports of Serbia is

Table O.2.1 **Share of oil and petroleum product imports from Russia in total oil and petroleum product imports** (in %)

	2016	2017	2018	2019	2020
Austria	6.8	3.7	1.9	2.4	5.8
Belgium	26.9	33.3	25.8	22.4	22.2
Bulgaria	63.0	50.2	53.3	54.4	8.0
Croatia	12.1	12.0	13.6	7.5	8.9
Cyprus	2.8	0.3	0.5	2.1	1.2
Czech Republic	33.8	35.2	34.0	32.6	29.1
Denmark	35.2	21.8	15.3	10.3	14.9
Estonia	25.2	29.8	30.5	28.7	32.0
Finland	73.7	71.9	70.2	74.9	66.8
France	12.4	14.6	14.0	12.9	13.3
Germany	33.1	31.4	30.0	26.4	29.7
Greece	20.8	19.6	22.5	20.4	26.3
Hungary	54.5	42.7	46.9	51.4	44.6
Ireland	2.0	4.7	7.8	5.1	4.7
Italy	13.9	11.1	11.0	14.6	12.5
Latvia	27.7	24.1	13.9	18.9	20.3
Lithuania	75.2	61.8	64.3	74.4	68.8
Luxembourg	0.0	0.0	0.0	0.0	0.0
Netherlands	30.2	30.2	31.1	21.9	21.0
Poland	73.3	68.5	68.9	63.8	67.5
Portugal	17.7	22.2	18.5	10.6	4.0
Slovakia	76.9	74.0	74.3	74.0	78.4
Slovenia	4.7	5.5	6.3	15.3	12.9
Sweden	35.1	31.2	30.6	26.7	12.9
Romania	41.6	40.9	39.5	38.1	32.8
Malta	6.1	3.2	0.5	4.0	8.2
Spain	8.0	5.7	3.0	4.7	5.6
EU	27.4	26.3	25.4	23.1	22.8
Euro area	24.0	23.4	22.3	20.0	20.8

Source: Eurostat.

Table O.2.2 **Share of natural gas imports from Russia in total natural gas imports** (in %)

	2016	2017	2018	2019	2020
Austria	0.0	0.0	0.0	0.0	0.0
Belgium	0.0	0.0	1.7	8.2	6.5
Bulgaria	100.0	100.0	99.9	79.4	75.2
Croatia	0.0	0.0	0.0	0.0	0.0
Cyprus	0.0	0.0	0.0	0.0	0.0
Czech Republic	100.0	99.2	99.5	99.7	100.0
Denmark	0.0	0.0	0.0	0.0	0.0
Estonia	100.0	98.4	99.8	99.0	46.2
Finland	100.0	100.0	97.6	97.0	67.4
France	20.2	18.7	19.8	19.6	16.8
Germany	60.3	52.3	48.8	48.8	65.2
Greece	64.7	58.2	65.9	32.3	39.0
Hungary	95.0	95.0	95.0	95.0	95.0
Ireland	0.0	0.0	0.0	0.0	0.0
Italy	41.1	47.5	48.4	47.1	43.3
Latvia	100.0	100.0	100.0	100.0	100.0
Lithuania	38.5	53.7	56.8	43.3	41.8
Luxembourg	25.3	27.2	27.2	27.2	27.2
Netherlands	27.5	20.8	32.6	31.7	30.3
Poland	74.3	65.6	61.6	55.0	54.9
Portugal	0.0	0.0	0.0	1.6	9.7
Slovakia	98.8	84.6	100.0	100.0	85.4
Slovenia	34.0	23.0	31.3	11.8	8.7
Sweden	0.0	0.0	0.0	0.0	12.7
Romania	98.9	98.9	86.7	36.9	44.8
Malta	0.0	0.0	0.0	0.0	0.0
Spain	0.0	0.0	2.5	8.5	10.4
EU	39.7	38.3	38.3	38.4	38.7
Euro area	34.9	33.5	33.5	33.4	34.9

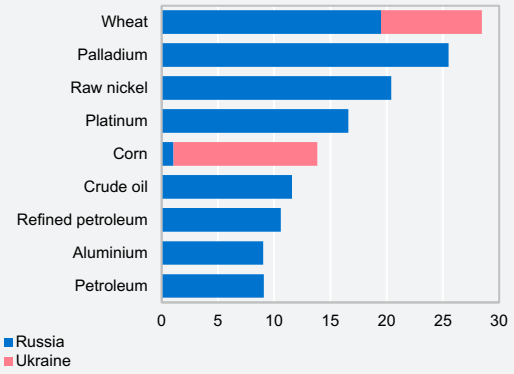
Source: Eurostat.

around 30%. Gas dependence is much higher (around 80% of gas imports in 2021 came from Russia), while the share of oil and petroleum product imports from Russia was below one fifth.

Owing to the agreement signed with Russia late last year about the delivery of a part of the necessary quantities of gas at a price lower than the market price, in force until mid-2022, Serbia is currently paying a significant portion of gas at much lower than market prices. Therefore, the impact of the current energy crisis on production costs in our economy is weaker than in most other countries. However, Serbia also paid the rest of the necessary quantities of gas at stock exchange prices, which, along with the effects of higher imported quantities, reflected on the widening of the foreign trade deficit in Q1 compared to the same period of 2021. Given the consequences of the current crisis on the Russian economy, the price of gas that Serbia will be paying in the coming period remains an open question.

Russia and Ukraine hold a significant share in global production of primary commodities. The current crisis will impact on significantly smaller supply this year as Ukraine is at the very top of global producers of numerous agricultural commodities – it holds the sixth place in the production of wheat and barley, the fourth place in corn production, and is the largest world exporter of sunflower oil. According to UNCTAD data, Ukraine and Russia, taken together, account for around 25% of total wheat and barley supply in the global market, and 16% of corn. Exacerbated tillage conditions in Ukraine due to the armed conflict, along with reduced availability of fuel and other energy products, whose inventories have been largely rechannelled to military purposes, including deteriorated maritime transport, will impact on rising global food prices. According to the IMF estimate, this year's exports of agricultural commodities from Ukraine could be half lower than in the past years. It is almost certain that the current rise in primary agricultural commodity prices will not be short-term, which will – in addition to a direct impact on rising inflation, through second-round effects and elevated cost-push pressures and reduced disposable income – spill over to the slowdown in the global economy this year. As Serbia is a net exporter of primary agricultural commodities and the global market of these commodities is highly integrated, a higher level of global primary agricultural commodity prices would positively reflect on our exports, particularly if this year's agricultural season turns out average, which we have assumed.

Chart O.2.1 **Share of Russia and Ukraine in total global exports of primary commodities in 2020**
(in%)



Source: The Observatory of Economic Complexity (OEC).

Russia boasts significant resources of metals, such as nickel, aluminium, as well as rare metals, such as neon, palladium, titanium etc., which are, among other, used for the production of microchips and other car parts. It is not only that production costs in the industry are rising based on higher metal prices, but the halts in global supply chains are also being deepened on these grounds and inflationary pressures are gaining strength globally. Shortages of some industrial raw materials are stepping up the pressure on rising industrial producer prices in the domestic market, thus also affecting lower disposable income for investment.

Table O.2.3 **Share of Russia and Ukraine in Serbia's foreign trade**
(in %)

	2016	2017	2018	2019	2020	2021
Share in total exports						
Russia	5.3	5.9	5.3	5.0	4.7	3.9
Ukraine	0.5	0.6	0.7	0.7	0.6	0.7
Share in total imports						
Russia	8.0	7.3	7.9	9.7	6.0	5.4
Ukraine	1.2	1.1	1.5	1.3	0.6	0.8
Share in total foreign trade						
Russia	6.8	6.7	6.8	7.7	5.5	4.7
Ukraine	0.9	0.9	1.1	1.1	0.6	0.8

Source: Eurostat.

Although the share of Serbia's exports to these two countries is not high, according to IMF projections, significant downward adjustments of Ukrainian and Russian growth to -35% and -8.5% for this year respectively, will certainly directly affect our economy as well. The share of exports to Russia in total Serbian exports has been constantly declining since 2017 – in 2021 it was less than 4% of total goods and services exports, while exports to Ukraine accounted for less than 1%. Serbia exports predominantly vegetables, fruit (notably apples), and car tires to Russia, and mainly fertilizers to Ukraine.

In addition to direct effects, the Ukraine conflict will also produce negative indirect effects on Serbia, through the impact on lower external demand, primarily from the EU. Russia's share in total exports to the EU is around 2%. Excluding trade within the EU, this share equals around 4% on average, and the situation in individual countries is different (Table 0.2.4). Given multiple interconnectedness and integration in global production chains, it is hard to precisely assess the indirect implications of dented trade activity and the introduced sanctions and countersanctions.

Heightened uncertainty globally and increased risk aversion could also slow down global FDI inflows and reflect on generally reduced investment propensity, particularly in view of increased production costs and a lower disposable income on these grounds. This could result in weaker than expected growth in employment and wages, and thus a smaller rise in consumption.

Table O.2.4 **Trade in goods between the EU and Russia**
(in %)

	Russia's share in total exports			Russia's share in total exports outside the EU			Russia's share in total imports			Russia's share in total imports outside the EU		
	2018	2019	2020	2018	2019	2020	2018	2019	2020	2018	2019	2020
Austria	1.4	1.5	1.5	4.2	4.6	4.6	0.6	0.6	0.5	1.9	1.8	1.6
Belgium	0.9	1.0	1.1	2.4	2.8	2.9	2.5	2.1	1.7	7.5	6.3	5.3
Bulgaria	1.4	1.8	1.5	4.0	4.8	4.3	9.7	9.9	6.1	25.3	25.2	15.6
Croatia	1.0	1.0	1.2	3.1	3.1	3.7	1.6	1.2	1.0	6.9	5.7	4.9
Cyprus	0.5	0.9	1.7	0.6	1.3	2.5	1.3	1.2	0.5	2.5	3.0	1.1
Czech Republic	2.0	2.2	2.2	9.9	10.3	10.9	3.2	2.8	1.7	8.4	7.1	4.2
Denmark	0.8	0.8	0.8	1.5	1.5	1.5	1.8	1.5	1.1	5.3	4.4	3.6
Estonia	8.7	8.4	8.4	23.0	23.7	22.3	9.8	9.6	9.1	22.8	22.5	21.3
Finland	5.1	5.5	5.2	10.9	11.9	11.1	13.9	13.6	9.8	30.8	31.1	23.2
France	1.1	1.1	1.2	2.3	2.3	2.6	1.8	1.5	1.1	4.0	3.3	3.2
Germany	2.0	2.0	1.9	4.2	4.2	4.0	2.4	2.0	1.5	5.0	4.3	3.2
Greece	0.7	0.6	0.5	1.3	1.3	1.2	7.5	7.3	6.0	14.1	14.2	13.1
Hungary	1.5	1.7	1.6	6.5	7.4	6.9	3.9	3.8	2.3	14.9	13.7	7.8
Ireland	0.4	0.4	0.3	0.6	0.6	0.5	0.6	0.4	0.3	1.0	0.7	0.5
Italy	1.6	1.6	1.6	3.3	3.3	3.3	3.5	3.4	2.5	8.0	7.8	6.0
Latvia	8.9	9.2	8.5	25.5	27.3	24.7	8.4	6.8	6.1	29.5	26.9	25.6
Lithuania	14.0	14.0	13.4	31.0	31.0	30.3	14.2	14.5	8.8	41.9	43.1	30.1
Luxembourg	1.0	1.2	0.9	4.2	5.6	4.3	0.2	0.2	0.2	0.8	1.0	0.9
Netherlands	1.1	1.3	1.3	2.9	3.3	3.3	3.9	3.4	2.2	7.4	6.4	4.3
Poland	3.1	3.1	3.0	11.8	11.8	11.4	7.3	6.5	4.5	16.6	14.3	10.0
Portugal	0.3	0.3	0.3	1.1	1.1	1.1	1.8	1.4	0.8	6.6	5.2	3.0
Slovakia	1.9	1.8	1.5	9.7	8.6	7.2	5.8	5.5	4.6	13.5	13.1	11.0
Slovenia	2.6	2.6	2.6	10.3	9.3	7.9	1.4	1.8	1.2	4.1	4.7	2.8
Sweden	1.3	1.4	1.3	2.8	2.8	2.6	3.2	2.7	1.0	9.2	7.7	3.0
Romania	1.6	1.5	1.3	5.8	5.4	5.0	3.8	3.6	2.2	13.8	13.2	8.5
Malta	0.0	0.2	0.2	0.0	0.3	0.4	2.1	3.9	0.3	5.0	7.4	0.6
Spain	0.7	0.7	0.7	1.6	1.5	1.6	0.9	1.0	0.9	1.8	1.9	1.7
EU	1.7	1.7	1.7	4.0	4.1	4.0	3.1	2.8	2.0	7.2	6.4	4.8

Source: UN Comtrade Database.

Furthermore, the sanctions imposed on the Russian financial sector and exclusion of Russian banks from SWIFT pose a risk to stability of the global financial system, particularly in the short run, given the system's interconnectedness and interdependence. To preserve confidence in the financial system, the NBS responded timely – when the current problems escalated, it issued a decision to launch the resolution of Sberbank Serbia, enabling direct sale of the shares of this bank. Sberbank Serbia is no longer a part of the banking group whose operation in the countries that imposed sanctions against Russia is currently banned, as it became a part of a domestic banking group.

To conclude, the effects of the conflict in Ukraine will negatively impact global economic flows and, by extension, economic activity in Serbia. Assuming that geopolitical tensions will not deepen further and that gas supply to Europe will not be disrupted, these effects are not likely to have long-term repercussions. At the same time, the achieved and preserved macroeconomic stability in the past years, along with rising export capacities owing to past investment and increased resilience to external risks, will work towards the reduction of negative effects of the current geopolitical crisis.

5 Labour market developments

Favourable labour market trends continued into Q1, as testified by the higher wages in all economic sectors, increased formal employment and a concurrent reduction in registered unemployment to a new low.

Wages and labour productivity

In the January–February period, the average nominal net wage went up by 12.9% y-o-y, to RSD 70,762 (EUR 602), driven primarily by the rise in private sector wages (15.1% y-o-y) and to a smaller extent public sector wages too (8.9% y-o-y). The same period also saw a rise in the median net wage by 11.7% y-o-y, to RSD 53,459 (EUR 455), while the minimum wage went up by 9.4% y-o-y, as a result of the robust economic growth and better than expected fiscal performance last year.

The January–February period saw a continuation of the y-o-y rise in the average nominal net wages in all economic sectors. The increase was particularly pronounced in the ICT sector[11] (31.6%), professional, scientific, innovation and technical services (19.0%), recreational services (15.4%), as well as accommodation and food services (13.6%), and wholesale and retail trade (13.2%), which belong dominantly to the private sector. At the same time, average wages also went up in construction (11.4%), manufacturing (10.0%), as well as in public administration, health, and education (9.4% aggregately), where the public sector is prevalent. This is in line with the Government's decision to raise public sector wages by around 7% on average in 2022.

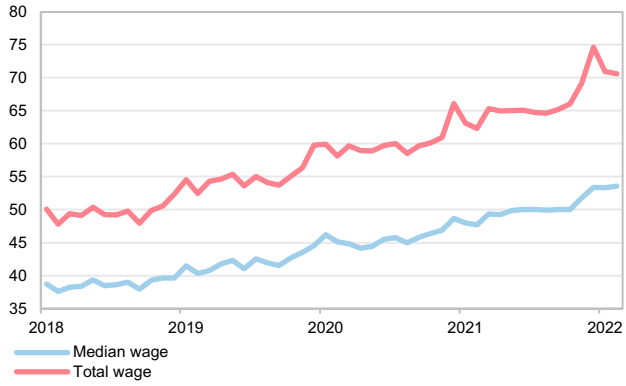
Total nominal net wage bill, as the main source of consumer demand, grew by 16.1% y-o-y in January and February as a result of a further increase in average wages and formal employment.

According to preliminary data, **overall economic productivity** went up by 2.7% y-o-y in Q1 amid a further rise in economic activity and relaxation of containment measures since the beginning of the year.

Employment

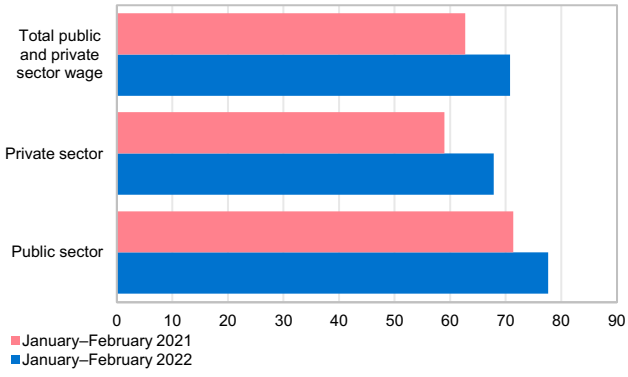
According to Statistical Office data obtained from the Central Registry of Mandatory Social Insurance and the Statistical Business Register, **total formal employment**

Chart IV.5.1 **Monthly dynamics of average nominal net wage and median net wage***
(in RSD thousand)



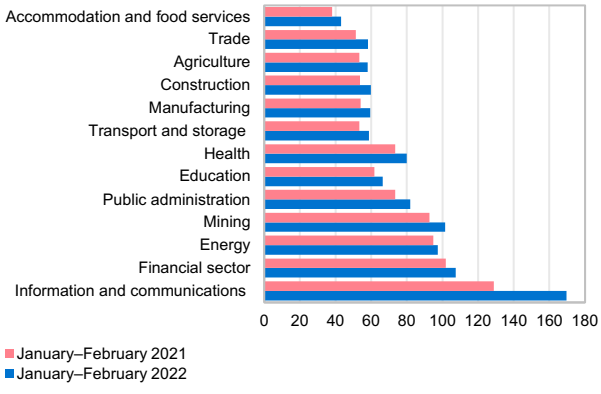
Source: SORS.
* Since January 2018, Tax Administration data have been used for wage calculations.

Chart IV.5.2 **Average nominal net wage**
(in RSD thousand)



Source: SORS.

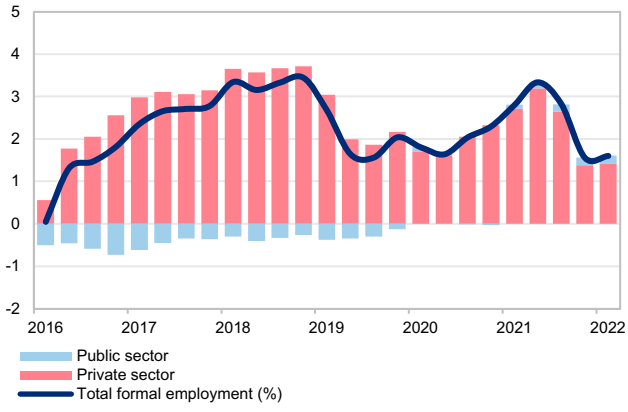
Chart IV.5.3 **Nominal net wage by economic sector**
(in RSD thousand)



Source: SORS.

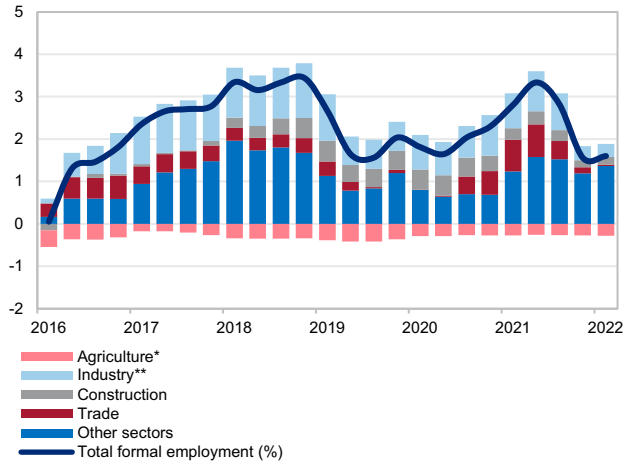
[11] A considerable rise in ICT sector wages is partly due to the fact that inflows from abroad are included in the Tax Return for Withholding Tax that is used as a source of data for average wages.

Chart IV.5.4 **Structure of y-o-y growth in total formal employment**
(in pp, quarterly average)



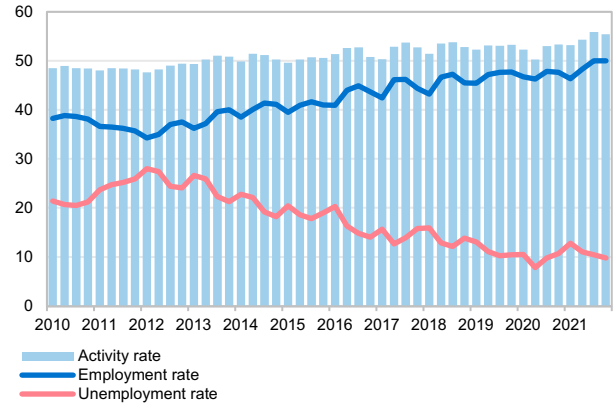
Sources: SORS and NBS calculation.

Chart IV.5.5 **Contribution to y-o-y growth in total formal employment by economic sector**
(in pp, quarterly average)



Sources: SORS and NBS calculation.
* Includes individual agricultural producers.
** Includes manufacturing, mining, energy and water supply.

Chart IV.5.6 **Labour market indicators according to the Labour Force Survey**
(in %)



Source: SORS.

went up by 1.6% in Q1 (same as in Q4 2021) to 2.29 mn in March, which is around 40 thousand formally employed persons more than a year ago. This is entirely owing to a y-o-y rise in employment with legal entities and entrepreneurs, by around 45 thousand in March, while the number of individual agricultural producers dropped by almost five thousand.

Private sector formal employment was close to the record level of 1.69 mn in Q1 and in March it grew by almost 35 thousand y-o-y, with the highest new recruitment recorded in ICT services, administrative and auxiliary services, professional, scientific, innovation and technical services, followed by manufacturing, accommodation and food services, as well as construction. On the other hand, in March, formal employment went down in y-o-y terms in energy, agriculture and financial sectors. **Public sector formal employment** increased by around five thousand y-o-y in March, dominantly in health and education sectors.

According to National Employment Service records, **registered unemployment equalled 473,573 in March**, which is almost 61 thousand unemployed persons less than a year ago and at the same time **the new lowest level** on record. The y-o-y reduction in unemployment in March was registered in all occupational groups in production and services sectors.

According to available data from the revised **Labour Force Survey**, which captures both formal and informal labour market segments, the participation rate for working age population (15–64) measured 71% in Q4 2021 (y-o-y rise of 2.9 pp), while the participation rate for 15+ stood at 55.4% (y-o-y rise of 2.1 pp). In Q4, the employment rate was maintained at the record 50.0% and was 2.4 pp higher than a year ago. **In Q4, the unemployment rate returned to a single-digit level (9.8%)** and was by 0.9 pp lower compared to Q4 2020. All the above indicators suggest the continuation of favourable labour market trends.

6 International environment

The projected significant slowdown in global economic growth in 2022 is dominantly attributable to the Ukraine crisis, whose consequences affect Ukraine and Russia directly, and indirectly other countries via the rising global prices of primary commodities and impaired global trade and financial flows.

As inflation continues up, going beyond the target tolerance band in most countries, normalisation of monetary policies is expected to continue, and its speed

will depend on how well inflation expectations are anchored. Central banks are increasingly faced with the challenge of simultaneously containing inflationary pressures and preserving economic growth.

Economic activity

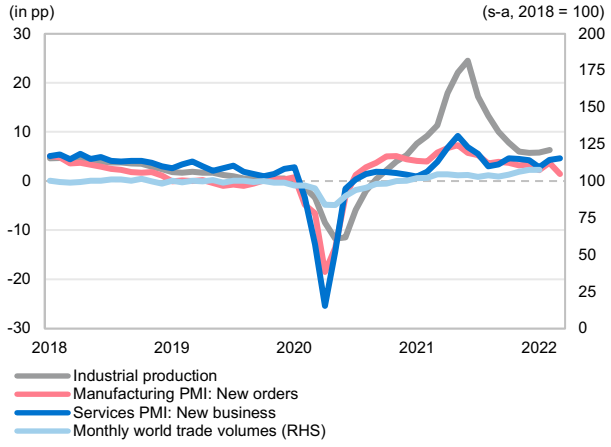
In the April WEO, the IMF estimated that the economic consequences of the Ukraine crisis will cause a **significant slowdown in global economic growth in 2022**, and at the same time intensify inflationary pressures. In addition to direct consequences to Ukraine and Russia, for which a strong economic contraction is forecast, consequences via trade and financial channels and commodity markets are spilling over onto the rest of the world as well. With this in mind, **in April the IMF revised down its January global growth projection for 2022 by 0.8 pp to 3.6%**, with deepening of the Ukraine crisis noted as the biggest risk to the projection that can additionally slow down GDP growth and lead to higher inflation rates. Additional **risks to the projection for 2022, which are dominantly skewed to the downside**, pertain to the possible escalation of sanctions to Russia, Chinese economy slowing down more than anticipated due to occasional lockdowns for preventing the viral infection, and emergence of more infectious virus strains.

Euro area economy in Q4 recorded mild s-a growth of 0.3%, dictated by an increase in total investments and government consumption (with an aggregate contribution to GDP of 1.2 pp), while the fall in net exports and household consumption acted in the opposite direction (with an aggregate negative contribution to GDP of 0.9 pp) amid energy price hikes and renewed spread of the virus. Still, the achieved economic growth in the euro area in Q4 was sufficient to exceed the pre-crisis level of economic activity (Q4 2019), and at the level of the entire 2021 it stood at 5.3%. In countries that are Serbia's key trade partners in the euro area, Q4 saw diverging movements – Italy's GDP went up 0.7% s-a, while Germany's dipped 0.3% s-a.

In conditions of the negative carry-over effects from end-2021, extended halts in global value chains, high energy prices and spilling over of the consequences of the Ukraine crisis, **in March the ECB estimated that Q1 would see an additional weakening in euro area's economic growth**, which stood at 0.2% s-a according to Eurostat's preliminary data. This was also indicated by the leading Economic Sentiment Indicator (ESI)[12] for the

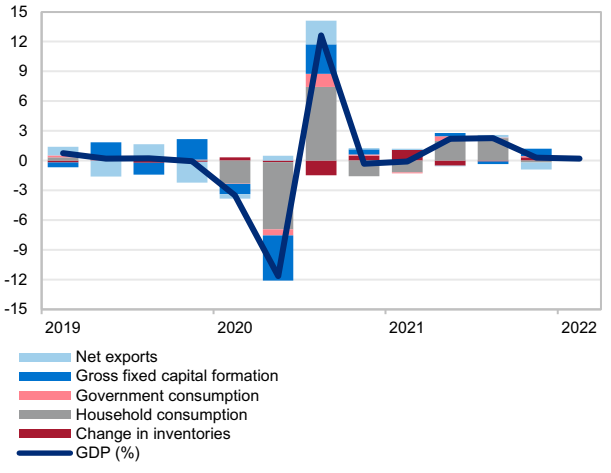
[12] The value of Economic Sentiment Indicator above 100 points indicates improvement, and below 100 worsening of economic expectations.

Chart IV.6.1 **Global economic activity indicators**
(quarterly moving average)



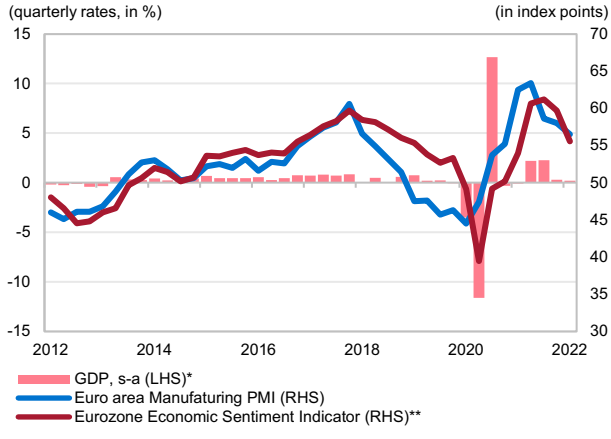
Source: IMF WEO, April 2022.
* Indicator deviations from margin value 50.

Chart IV.6.2 **Contributions to s-a real GDP growth rate of the euro area**
(quarterly, in pp)



Source: Eurostat.

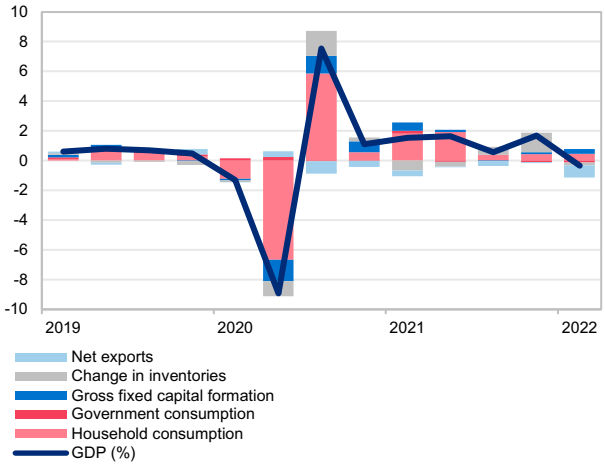
Chart IV.6.3 **Movements in GDP and leading indicators of the euro area**



Sources: Eurostat, S&P Global and European Commission.
* Eurostat's preliminary flash estimate for Q1 2022.
** ESI is standardised relative to PMI.

euro area decreasing to 106.7 points in March (its lowest level since April 2021) due to the significant deterioration of consumer expectations, as well as the Eurozone Manufacturing PMI[13] dropping to 56.5 points in March (the lowest level since January 2021) due to the fall in export orders in industrial branches highly dependent on energy. In March, the ECB revised down its December GDP growth projection for 2022 (by 0.5 pp to 3.7%), noting that risks to the projection have become more tilted to the downside after the escalation of the conflict in Ukraine and the associated uncertainties, which has an adverse effect on energy prices, consumer confidence and trade flows.

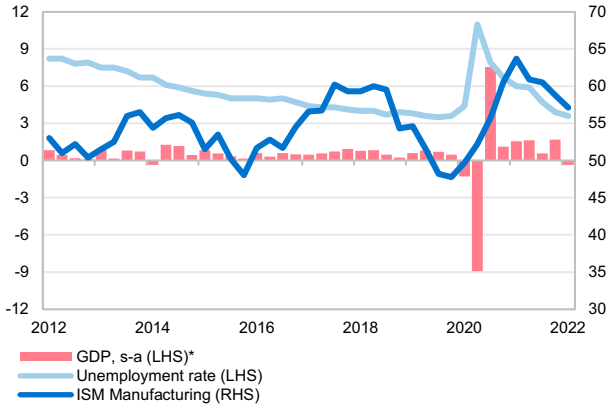
Chart IV.6.4 **Contributions to s-a real GDP growth rate of the USA**
(quarterly, in pp)



Sources: U.S. Bureau of Economic Analysis and NBS calculation.

The ECB estimated that the **euro area labour market continued to recover in Q4**, as witnessed by the rise in the activity rate of the working population (15–64 years of age) to 74.2% and the employment rate to 60.2%, which is above their pre-crisis level (Q4 2019). In addition, the unemployment rate had already dipped below the pre-crisis level and stood at 6.8% in March, although the support provided by the short-time work schemes is still important. Though still faced with difficulties in terms of filling in available job positions, since the start of 2022 a larger percentage of employers expect the number of employees in production and services sectors to increase. Hence, in March the ECB slightly revised up its December forecast for euro area employment growth in 2022 (by 0.1 pp to 1.4%) and kept its unemployment rate projection at 7.3%.

Chart IV.6.5 **Movement of selected macroeconomic indicators for the US**
(quarterly, in %) (in index points)



Sources: U.S. BEA, U.S. BLS and Institute for Supply Management.
* U.S. BEA preliminary estimate for Q1 2022.

US GDP rose by 1.7% s-a in Q4 (5.7% at the level of 2021) on account of rising inventories and private consumption, and investments in fixed assets, while government consumption and net exports decreased. The ISM Manufacturing PMI[14] in March stood at 57.1 points (compared to 58.8 points in December), suggesting a slowdown in economic activity in Q1 due to late deliveries and the shortage of key production inputs, notably electronic components. According to a preliminary assessment of the US Bureau for Economic Research, GDP in Q1 dipped 0.4% s-a, i.e. by 1.4% annualised. Amid heightened geopolitical tensions and deteriorating financial conditions and consumer confidence, as well as the narrowing of fiscal and monetary policy expansiveness, in March the **Fed** made considerable downward revisions to its December projection of US economic growth – by 1.2 pp to 2.8%, estimating risks to the projection as skewed to the downside.

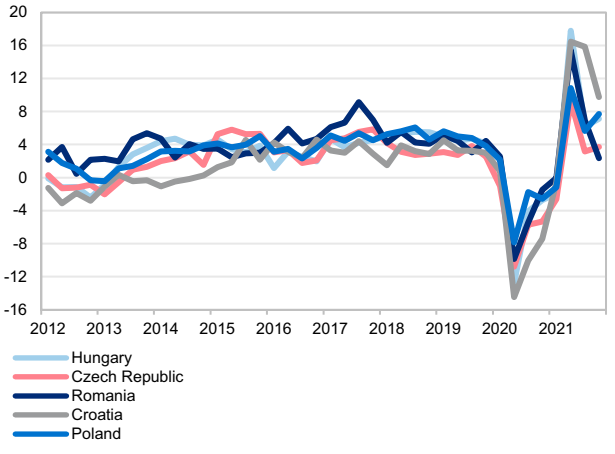
[13] The value of Eurozone Manufacturing PMI above 50 points indicates expansion, and below 50 a contraction in manufacturing within the euro area.

[14] The value of ISM Manufacturing PMI above 50 points indicates expansion, and below 50 a contraction in manufacturing in the USA.

The US unemployment rate coming down to 3.6% in March (its lowest level since the pandemic broke out) was accompanied by a further increase in activity and employment rates. Nevertheless, the total number of the employed in March was by around 1.6 mn persons lower than before the pandemic (February 2020), and on top of that, there were around 11 mn job vacancies on record, dominantly in the services sector, which exerts strong pressure on wages and makes **the US job market tight**. In March the Fed did not change its previous unemployment rate forecast of 3.5% in 2022.

The achieved economic growth of 6.0% y-o-y in Q4 2021 at the level of the **CESEE region** is attributable to growth in overall consumption and investments (8.3 pp aggregate contribution to GDP growth), while net export was on a downward path (2.3 pp negative contribution to GDP). By country, the biggest y-o-y growth in Q4 was recorded in Slovenia (10.4%) and Croatia (9.7%), partly due to the low base from last year, while the smallest y-o-y growth was recorded in the Czech Republic (3.7%) and Slovakia (1.4%). Results better than anticipated that were achieved at end-2021 led to a change in the initially more favourable economic prospects of the region, which deteriorated greatly once the conflict in Ukraine broke out given that elevated uncertainty undermines domestic and external demand, and encourages the continued increase in the prices of primary commodities. Therefore, in April the IMF revised down its January projection of GDP growth in 2022 for all countries in the region, with forecast growth for Serbia being revised to a lesser degree than in the majority of other countries.

Chart IV.6.6 **Y-o-y GDP growth rates of selected CESEE countries**
(quarterly, in %)

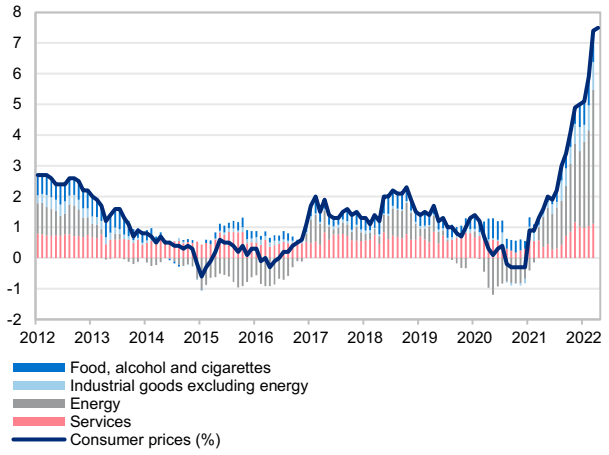


Source: Eurostat.

The Russian government's statistical office estimates that in Q4 **Russia's GDP** rose 5.0% y-o-y on the back of stepped-up consumption and increased inventories, while economic prospects for this year, despite the continued growth in the prices of energy and cereals (of which Russia is a net exporter) have significantly deteriorated under the impact of economic and financial sanctions introduced by the western countries. In April, the IMF slashed the January projection of the Russian economic growth in 2022, cutting it by 11.3 pp to -8.5%.

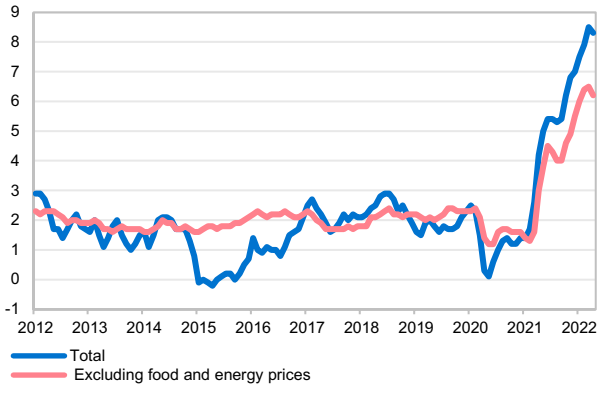
Despite frequent closures of manufacturing and trade centres due to the implementation of zero tolerance strategy to COVID-19, preliminary estimates of the National Bureau of Statistics indicate that **China's GDP** posted y-o-y growth of 4.8% in Q1 (after 4.0% in Q4 2021), based on the recovery of the production and services sectors, and stable agricultural activity. In April, the IMF slightly revised down its January forecast of China's economic growth in 2022 by 0.4 pp to 4.4%.

Chart IV.6.7 **Contributions of HICP components to y-o-y inflation in the euro area**
(in pp)



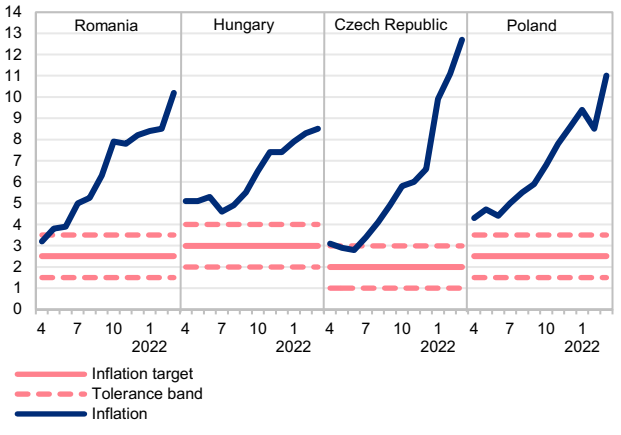
Sources: Eurostat and NBS calculation.

Chart IV.6.8 **US inflation, measured by CPI**
(y-o-y rates, in %)



Source: U.S. Bureau of Labor Statistics.

Chart IV.6.9 **CPI movements in selected CESEE countries in the previous year**
(y-o-y rates, in %)



Sources: Central banks of selected countries.

Inflation movements

During Q1, **y-o-y inflation in the euro area** continued on its upward trajectory and came at 7.4% in March, of which around a half is the contribution of the enormous hike in energy prices (around 44% y-o-y in March), which spilled over onto the prices of other products and services, thus making inflationary pressures even more broadly distributed. Due to elevated costs of transport and fertilisers, and partly the effects of seasonal factors, food prices in the euro area in March went up 5.0% y-o-y, while the March increase of **core inflation** to 2.9% y-o-y was triggered by the extended growth in the prices of services and industrial products (energy excluded), which also mirrored the large increase in the prices of energy and industrial raw materials. Their pronounced growth mostly dictated the increase in y-o-y inflation (measured by the change in the HICP) in **Germany** (7.6%) and **Italy** (6.8%). In the coming months, the ECB expects to see additional pressure on consumer price growth in the euro area due to the negative effects of the Ukraine crisis. Eurostat's preliminary flash estimate put April inflation at 7.5% y-o-y.

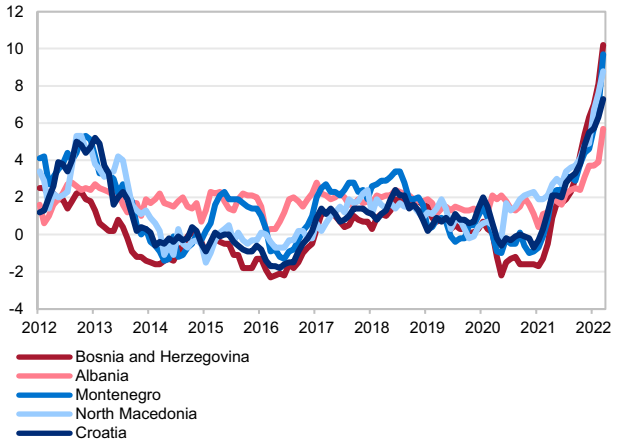
Headline inflation in the USA (measured by the CPI) picked up additionally to a record 8.5% y-o-y in March, under the impact of a major hike in energy prices (32.0%) and food (8.8%), onto which the sharp growth in these prices in the global market spilled over, coupled with global geopolitical tensions. Core inflation (excluding food and energy prices) also accelerated its growth to 6.5% y-o-y in March on account of product prices rising by around 12% y-o-y, as well as due to the higher prices of services (notably housing and transport). Taking into account imbalances in the goods and services market, the rising pressures from the labour market, as well as growth of import inflation, the Fed expects persistent and broadly dispersed inflationary pressures in the USA, as attested by the y-o-y increase in the Personal Consumption Index (PCE) to a record 6.6% in March, or to 5.2% excluding the food and energy components (as the Fed's preferred inflation measure). According to a preliminary estimate of the US Bureau of Labour Statistics, headline inflation in April mildly slowed down its y-o-y growth to 8.3%, mostly on account of somewhat lower gas price increase than in March.

In all observed **CESEE countries** consumer prices maintained their upward trajectory during Q1 against the backdrop of a significant hike in energy, food and raw materials, which was additionally triggered by the conflict breaking out in Ukraine due to hampered supply and shortages of some sources of energy, agricultural products and basic metals. The highest y-o-y inflation

growth in March was recorded in the Czech Republic (12.7%), followed by Poland (11.0%) and Romania (10.2%), with all components of the CPI having an inflationary effect. In Hungary, where the y-o-y rise in petroleum product prices slowed down thanks to the implementation of the government's decision, y-o-y inflation equalled 8.5% in March. Other countries in the region also took a series of administrative and fiscal measures to curb excessive growth in the prices of energy and basic food staples, as well as mitigate the consequences on households' purchasing power and operations of corporates.

During Q1, inflationary pressures based on the rising prices of food and energy intensified in **Western Balkan** countries as well, notably Bosnia and Herzegovina and Montenegro, where y-o-y inflation in March rose to 10.2% and 9.7% respectively. Somewhat lower growth in y-o-y inflation in March was recorded in North Macedonia (8.8%) and Croatia (7.3%), and the lowest in Albania (5.7%).

Chart IV.6.10 **CPI movement in Western Balkan countries**
(y-o-y rates, in %)



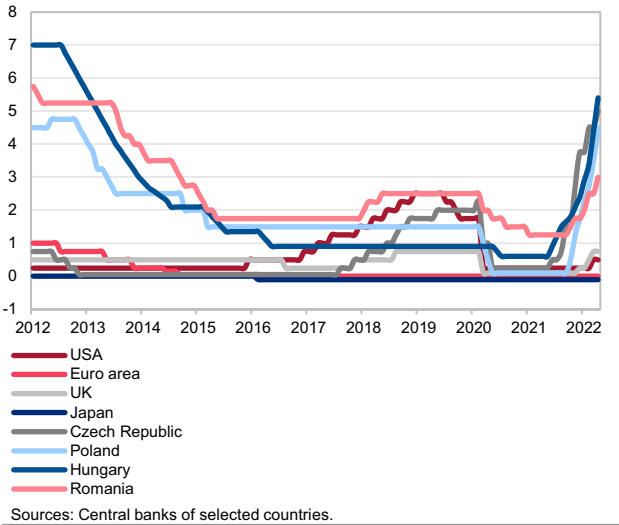
Sources: National statistical offices.

Monetary policy

During the four months of 2022, the **ECB** did not change its main refinancing operations rates, and monetary policy normalisation continued via a reduction of quantitative easing, and the ECB decided to conclude the **APP programme** sooner than previously planned. Thus, in March it revised down the planned amounts of asset purchases within the programme,[15] and in April it confirmed the decision that net asset purchases should be wrapped up during Q3.[16] The amounts of net purchases in Q3 would be defined later, depending on future data. As so far, the ECB said that assets from the maturing instruments purchased within the programme will be reinvested over a longer period after the interest rates begin to increase. In addition, as of March the ECB partially altered announcements regarding its forward guidance that adjustments in interest rates would take place "some time after" the end of net asset purchases under the APP, and not "soon", as previously announced. When the interest rates do change, it will be done gradually.

After the volume of asset purchases within the **PEPP programme** was trimmed during Q1, as had been announced, it was wrapped up at the end of March, and the principal amount of maturing securities will be reinvested at least through 2024. In case of the

Chart IV.6.11 **Policy rates across selected countries**
(p.a., in %)



Sources: Central banks of selected countries.

[15] The amounts were revised to EUR 40 bn in April, EUR 30 bn in May and EUR 20 bn in June.

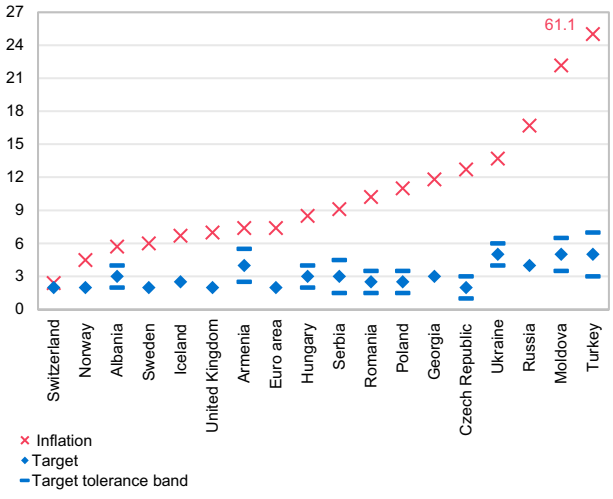
[16] Previously, the average monthly purchase was planned at EUR 40 bn in Q2, EUR 30 bn in Q3 and EUR 20 bn from October onwards.

Table IV.6.1 **Inflation, policy rates and inflation targets by country**
(in %)

Central bank	Inflation*	Inflation target	Policy rate**
Serbia	9.1	3.0 ± 1.5	1.50
Poland	11.0	2.5 ± 1.0	5.25
Czech Republic	12.7	2.0 ± 1.0	5.75
Hungary	8.5	3.0 ± 1.0	5.40
Romania	10.2	2.5 ± 1.0	3.00
Turkey	61.1	5.0 ± 2.0	14.00

Sources: Central banks of selected countries.
* CPI, y-o-y rates in March 2022.
** Latest available data.

Chart IV.6.12 **Inflation and target by country in March 2022**
(p.a., in %)



Sources: Eurostat and central banks of selected countries.

fragmentation of the market due to the pandemic, reinvestment can be flexibly adjusted in terms of period, asset class and jurisdiction, which includes the purchase of Greek bonds. Security purchases within the programme may continue if needed, in order to mitigate the negative effects associated with the pandemic. The ECB also continues to ensure liquidity via its **targeted longer-term refinancing operations to banks** (TLTRO III). Expectations are that special terms of financing within the programme will apply until end-June this year.

As signalled in January, in its March meeting the **Fed** raised its federal funds range by 25 bp and then by 50 bp in May, to 0.75–1.0%. The federal funds rate hike is expected to continue in upcoming meetings, and in May the Fed announced its plan for reducing the size of balance sheet that will begin in June. In the March meeting, the majority of FOMC members expected the federal funds rate to be in the 1.75–2.0% range at end-2022, with the median of expectations for end-2023 standing at 2.75%. The Fed's explanation for starting with monetary policy tightening is the further strengthening of economic activity and labour market indicators, while inflation remains elevated, reflecting supply and demand imbalances, higher energy prices, and broader price pressures. It was estimated that impact of the events in Ukraine on the US economy is highly uncertain, but that it will most likely create additional upward pressure on inflation and weigh on economic activity.

After it stepped on the path of monetary policy tightening in December 2021, the **Bank of England** lifted its key policy rates in the following three meetings as well (February, March and May), each time by 25 bp, to 1.0%, thus bringing the rate above the pre-pandemic level. In the February meeting it also decided to start downsizing its balance sheet, stop reinvesting assets from maturing securities, and sell corporate bonds. In May it announced it would consider the decision about the beginning of the sale of government bonds, and announced the continuation of moderate monetary policy tightening in the months ahead.

The growing inflationary pressures, which are also associated with the escalation of the conflict in Ukraine, drove the central banks in the CESEE region to revise up their inflation projections and continue with monetary policy tightening in 2022. Since the start of the year, the central bank of the **Czech Republic** raised its policy rate by 200 bp to 5.75% in May, its highest level since October 1999. As of June 2021, the policy rate was lifted eight times in a row, by a total of 550 bp. Along with the May decision, it was also stressed that monetary policy could be tightened further in the coming meetings. The

central bank of **Hungary** also continued increasing its policy rate – by 50 bp each in January and February and by 1 pp each in March and April, to 5.4%. The April policy rate hike is the 11th consecutive increase since June 2021. Since then, the rate has been increased by a total of 480 bp. In addition, the interest rate corridor was broadened in early March by raising the the margin for lending facility rate (policy rate +3.0 pp), explaining that this secures additional manoeuvring space to monetary policy. Announcements for the coming period include the continuation of the cycle of tightening monetary conditions and policy rate hikes to a greater extent than before. Policy rate increases will continue until inflationary expectations stabilise around the target midpoint and risks to inflation are equally balanced in the monetary policy horizon.

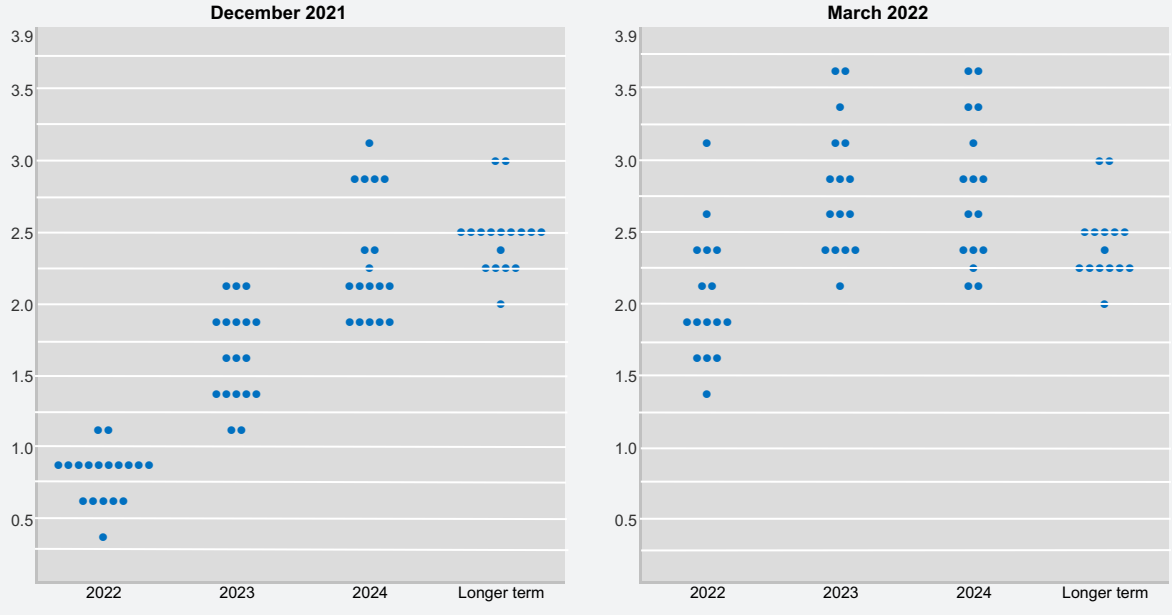
The central bank of **Poland** also continued with monetary policy tightening in 2022 and as at May it raised its policy rate by a total of 350 bp to 5.25%. Thus, since October 2021, the policy rate has been increased eight times, by a total of 515 bp. Also, the required reserves rate was raised in March, from 2.0% to 3.5%. The central bank of Poland stated it would take all the necessary measures to ensure macroeconomic and financial stability, primarily in order to lower the risk of inflation remaining elevated. The central bank of **Romania**, which also embarked on monetary policy tightening in October 2021, continued with policy rate hikes in 2022 – by 25 bp in January, by 50 bp each in February and April and by 75 bp in May, hence the policy rate equalled 3.75% in May. Explaining that this is part of the gradual monetary policy normalisation, the interest rate corridor was symmetrically widened in January (policy rate ±1.0 pp).

In contrast, despite strong inflationary and depreciation pressures, the central bank of **Turkey** did not change its policy rate (14.0%) during the first four months of 2022, as announced in December 2021.

Text box 3: Anticipated effects of monetary policy normalisation by leading central banks on Serbia

Prolonged strengthening of inflationary pressures, mainly due to the escalating energy crisis, contrary to assumptions about these pressures waning gradually in H2 2022 in conditions of the anticipated resolution of halts in global value chains, drove leading central banks to initiate monetary policy normalisation, i.e. to move the announcements about the beginning of normalisation sooner than previously expected. The Bank of England was the first among leading central banks to start raising its key policy rate in December 2021, while the Fed did so in March 2022. Given that changes in leading central banks' monetary policies are reflected on liquidity in the international financial market, global financial conditions and capital flows, this text box will look at the potential effects of the Fed and ECB's monetary policy normalisation on Serbia.

Chart **O.3.1 Fed: FOMC members' expectations on adequate monetary policy; median value of the target range or target level of the federal funds rate**
(in %)



Source: Fed, Summary of Economic Projections, December 2021 and March 2022.

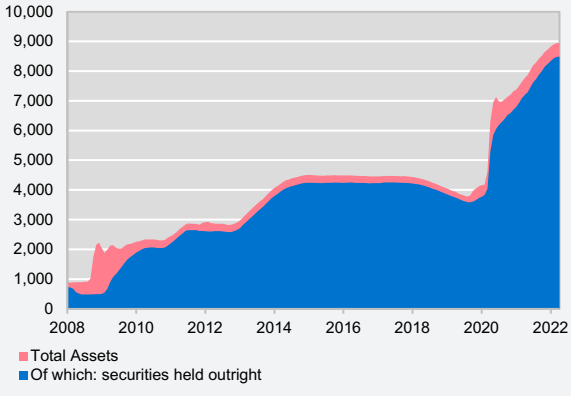
The US and euro area economies are in different phases of economic cycles, with the former recovering more quickly, especially its labour market. Therefore, the Fed – which, unlike the ECB, began tightening its monetary policy even before the coronavirus pandemic broke out – again started with monetary policy tightening sooner. In 2021, the Fed kept its federal funds range unchanged (0–0.25%), and at the end of 2021 and in early 2022 expectations prevailed that the first increase will be in March 2022, which indeed occurred. With the rising expectations about the Fed achieving its goals more quickly, during 2021 there was an increasing number of FOMC members anticipating a rise in the federal funds rate in 2022 and 2023, as well as in the number of rate hikes in both years. Also, in the May meeting the Fed published the plan for downsizing the asset volume (government and mortgage bonds) in its balance sheet that would begin in June.

As the Serbian economy has more ties with the euro area economy than the US one, we should not expect any major direct impact of the Fed's rate hike and the appreciation of the US dollar on the Serbian financial system. A smaller share of the total goods exchange between Serbia and other countries is in dollars – about 8% of exports and around 14% of imports (five-year average), consisting mostly of primary agricultural commodities and energy, while the goods exchange with the US accounts for less than 2% of Serbia's total foreign trade in goods (around 2% of Serbia's exports is channelled to the USA and around 1% of imports come from the USA). Also, as the share of public debt in dollars contracted significantly over the past years (from 34% at end-2016 to 11% in March 2022), so did the potential effect of increased

costs of government borrowing and the currency risk that stems from the value of the US dollar changing vis-à-vis the euro, and in turn vis-à-vis the dinar as well. In addition, the dollar is not the currency of a significant amount of savings (around 3% of household savings and 4.6% of corporate deposits), while the share is even lower with loans – households do not have dollar loans, while the share of corporate dollar loans is 0.3%. The Fed's monetary policy tightening could exert a certain impact through the flows of portfolio investments, given that changes in the Fed's monetary policy are reflected on overall liquidity in the international market, global financial conditions and capital flows, notably to emerging countries. As at end-April, foreign investors held around RSD 143 bn or 15.5% of the portfolio of dinar government securities. However, it should be noted that relative to 2014, when some investors fled the market (due to the decrease in the Fed's quantitative easing) which resulted in larger outflows on account of portfolio investments from Serbia, the base of investors in Serbian government securities has now been expanded in terms of both the number of investors and their geographical structure. The inclusion of dinar government securities in the indices of JP Morgan in June 2021 and international Clearstream registry in October 2021 should also contribute to a further expansion of the investor base.

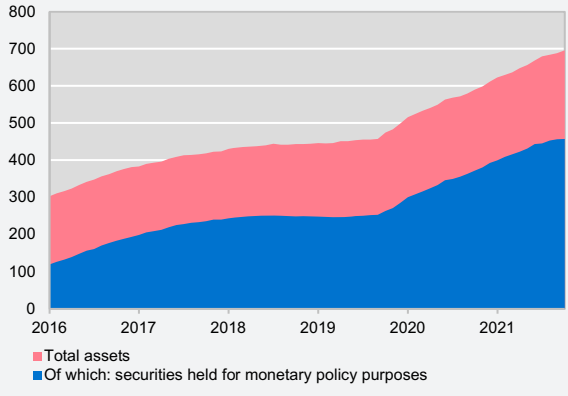
Unlike the Fed, which started with monetary policy tightening, the ECB is still not giving any straightforward announcements as to when it would begin lifting its rates. It wrapped up the PEPP programme at end-Q1, and in the March meeting decided to trim the volume of net asset purchases within the APP programme. According to latest information, the programme is likely to end during Q3, while increase in interest rates will begin at some point after the programme is wrapped up. In this sense, we should not anticipate a major tightening of financial conditions any time soon, since the ECB also stressed that stimulating financial conditions are still necessary for ensuring sustainable economic growth, whose outlook – due to the crisis in Ukraine – is now even less favourable.

Chart O.3.2 **Fed's total assets**
(monthly average, in USD bn)



Source: Federal Reserve Bank of St. Louis.

Chart O.3.3 **ECB's total assets**
(as at end-month, in EUR bn)



Source: ECB.

Given Serbia's strong trade and financial ties with the EU, we can expect changes in the ECB's monetary policy to have a larger impact than those of the Fed. The EU is Serbia's biggest foreign trade partner, and a destination of two-thirds of Serbian exports, as well as the source of around three-fifths of Serbia's imports, with around 40% of Serbia's exports and imports pertaining to the euro area alone. In addition, the euro is the currency of the bulk of exports (90%) and imports (82%) (five-year average). Still, we should bear in mind that the share of the euro area in Serbia's foreign trade has been shrinking over the past years, parallel with the increase in the share from other countries, notably China and non-euro area EU countries. Though the biggest portion of FDI still comes from the EU, in the past years we have seen a significant rise in investments from Asia, which accounted for more than 20% of the FDI inflow in 2020 and 2021. This is what mitigates the impact of the anticipated ECB monetary policy tightening on Serbia.

As in the case of the Fed, the impact of the ECB's monetary policy normalisation could reflect on capital flows, notably on portfolio investments. Tightening monetary policy by way of main refinancing operations rate can impact investor expectations in terms of the growth in the yield in developed countries, which could result in higher anticipated yields in emerging countries (Serbia included) and/or lower capital inflows on this account. Trimming the ECB's balance sheet would act in the same direction. On the other hand, we believe that FDIs should not suffer a severe hit given that this type

of investors pays more attention to macroeconomic stability and structural indicators of the investment target country than conditions in the country of investment origin, as these are, in their essence, long-term investments. Also, greater regional diversification of investments, such as the rising investments from Asia, additionally increases the resilience to changes in the euro area's financial conditions.

ECB measures could also affect the local market via the interest rates channel. Since around 62% of receivables from the private sector is FX-indexed, notably in euros, the ECB's monetary policy tightening and the consequent rise in interest rates in the euro area money market may impact the movement in interest rates in the domestic market as well. Still, given Serbia's favourable macroeconomic outlook and the anticipated continued increase in credit rating towards investment grade, we do not anticipate that an increase in euro area interest rates would fully transmit onto euro-denominated loans at home.

Uncertainty as to the pace of the global economic recovery from the pandemic-induced crisis and the consequences of the crisis in Ukraine on that recovery also dictate uncertainty in terms of the pace of monetary policy normalisation by leading central banks. As a small and open economy, Serbia will not be isolated from developments in international financial and commodity markets. However, a potential subdued capital inflow will primarily affect countries with a pronounced external and internal imbalance, which certainly excludes Serbia. **Thanks to the secured and preserved macroeconomic and financial stability, narrowed internal and external imbalances, and the accumulated FX reserves, in the prior period Serbia boosted its resilience to risks arising from the international environment and lowered its dependence on external sources of financing.** The NBS will continue to track and assess international developments and, using the measures at its disposal, react in order to alleviate the negative effects of those developments on the local economy and the financial system.

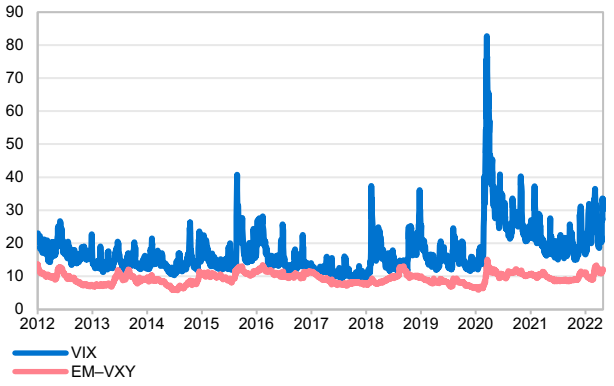
Financial and commodity markets

The positive sentiment in the international financial market that prevailed at the end of last year and early this year with the weakening of the negative effects of the coronavirus soon turned under the impact of market expectations that monetary policies of leading central banks would normalise sooner in conditions of rising and more persistent inflationary pressures. The growing uncertainty and elevated risk aversion were additionally triggered by the escalating geopolitical tensions, the outbreak of the armed conflict in Ukraine and the subsequent introduction of sanctions to Russia by western countries. In regard to this, the implicit measure of **financial market volatility (VIX)** increased during Q1 2022 by 3.2 pp to 20.6%. At the same time, **the EM–VXY index, which indicates the volatility of currencies of emerging economies**, rose by 0.3 pp and measured 11.5% at end-March 2022.

Yields on ten-year government bonds of advanced countries went up during Q1 by around 1 pp on average. The increase in the yield on ten-year US Treasures in Q1 was mostly affected by market expectations in relation to the Fed's monetary policy response to accelerating inflation and growing inflationary pressures. An additional contribution to increase in the yield was the Fed's federal funds rate 25 bp hike in March, as well as statements by FOMC members in favour of a potentially faster and sharper tightening of monetary conditions in order to halt the rising inflation. Yields on ten-year bonds of advanced European countries posted similar movements against the backdrop of prolonged growth of inflation and inflation expectations. On the other hand, in mid-quarter, elevated geopolitical tensions and the escalation of the conflict in Ukraine acted in the opposite direction and led to a temporary decline in yields on bonds of advanced countries in conditions of stepped-up investor demand for safe assets. Ten-year bonds of countries in the region also recorded yield growth in Q1, which was additionally facilitated by increase in their central banks' policy rates.

Parallel with the rise in the yield on US Treasuries, the **dollar gained on the euro** during Q1 by 1.8%. For the most part, such movements resulted from leading central banks' decisions, as well as market participants' expectations that the Fed would tighten its monetary policy faster than the ECB. Also, the appreciation of the US currency is partly attributable to heightened tensions between Russia and western countries amid the crisis in Ukraine, which prompted growth in investor demand for the dollar as a safe haven currency.

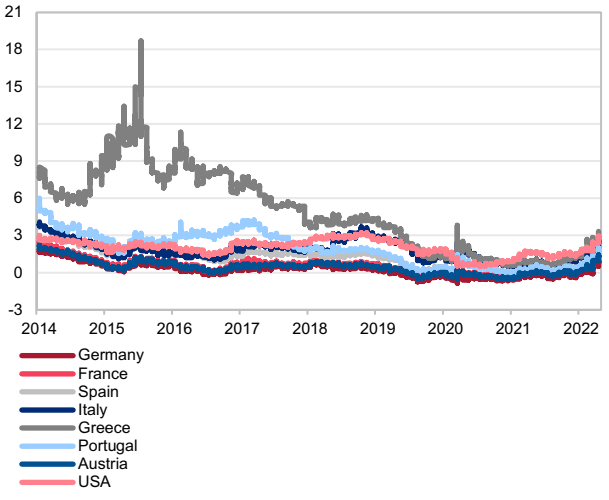
Chart IV.6.13 **Implied volatility of the global financial market***



Source: Bloomberg.

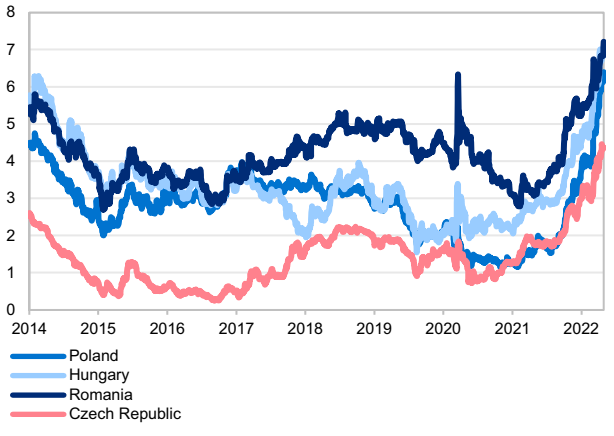
* VIX (Chicago Board Options Exchange Market Volatility Index) measures implied volatility of the S&P 500 index; EM–VXY (J.P. Morgan emerging markets implied volatility index) measures aggregate volatility of emerging market currencies based on three-month forward options.

Chart IV.6.14 **Yields on ten-year bonds of euro area countries**
(daily data, in %)



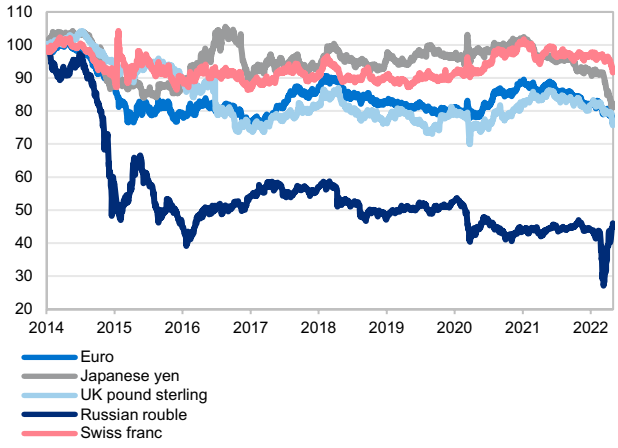
Source: Bloomberg.

Chart IV.6.15 **Yield on ten-year bonds by country**
(daily data, in %)



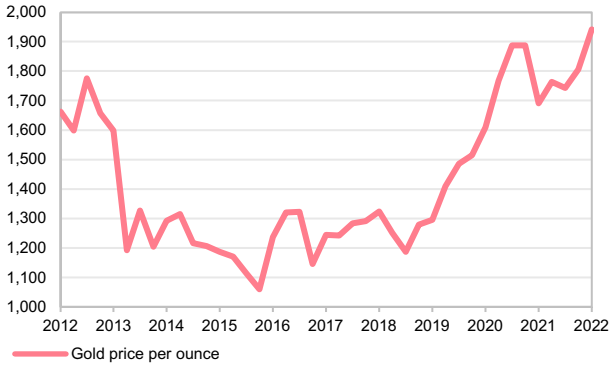
Source: Refinitiv.

Chart IV.6.16 **Exchange rates of selected national currencies against the dollar***
(daily data, 31 December 2013 = 100)



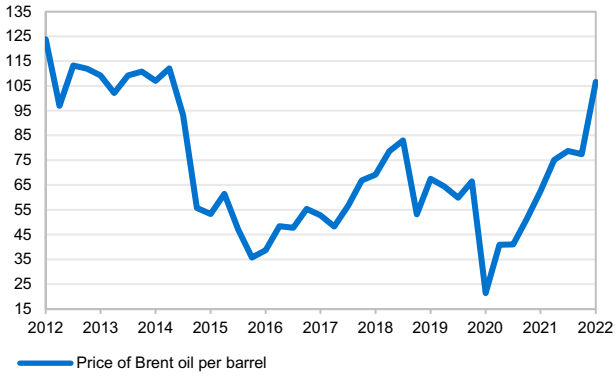
Source: IMF.
* Growth indicates appreciation.

Chart IV.6.17 **World gold price movements**
(end-of-quarter, in USD)



Source: Bloomberg.

Chart IV.6.18 **World oil price movements**
(end-of-quarter, in USD)



Source: Bloomberg

With increased expectations that the Fed would tighten its monetary policy faster and to a greater extent, the **global price of gold** went below USD 1,800 per ounce at end-January, only to soar back up already in February and exceed USD 1,900 per ounce at the end of the month, on account of investors moving to safe assets with the outbreak of the conflict in Ukraine and the sanctions imposed on Russia by the USA and the EU. The same factors conditioned the rise in the price of gold beyond USD 2,000 per ounce in the first quarter of March, but it was mitigated in mid-March after the Fed's decision to initiate a cycle of federal funds rate hikes. At end-Q1, the price of gold was at around USD 1,940 per ounce, up by 7.5% from end-2021. However, in the second half of April the price of gold dipped slightly under the impact of increased yields on long-term US Treasuries and the Fed's planned balance sheet trimming, hence at the end of the month it stood at around USD 1,910 per ounce.

The global oil price trended up during Q1 in conditions of elevated global uncertainty due to hampered supply of oil and other energy sources, notably from Russia which is among leading global exporters. Against such backdrop, from USD 100 per barrel at end-February, the price of oil continued up in March and touched record high levels, at times even going beyond USD 120 per barrel. At end-Q1 it edged down to around USD 107 per barrel, under the impact of the USA's decision to continue utilising strategic crude oil reserves, the renewed oil export from Kazakhstan and the potentially subdued oil demand in China due to the reinstated lockdown aimed at suppressing the pandemic. The oil price stayed there at the end of April amid the projected slowdown in global economic growth and increased inflation, which negatively affects global oil demand.

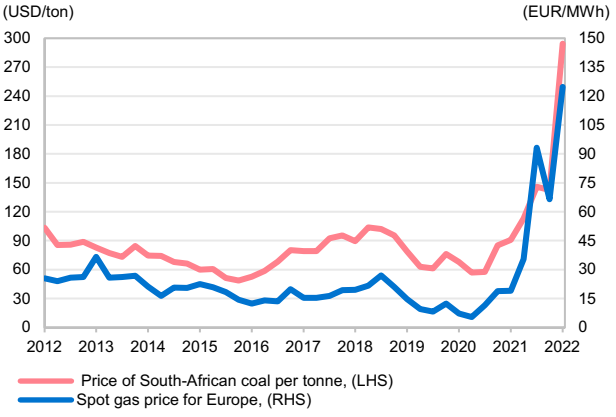
Once the Ukraine conflict escalated at end-February, the **price of natural gas** for Europe soared suddenly to more than EUR 100 per MWh, only to double in the first ten days of March. At end-Q1, the price of gas was around EUR 120 per MWh, which is significantly higher than at end-2021 and at the same time indicates that the European gas market remains tight considering that the price of this energy source, before its sharp growth as of mid-last year and additional pressure because of the Ukraine crisis, mostly trended below EUR 30 per MWh. Therefore, gas prices are expected to remain high for an extended period, just as the price of electricity, which is closely connected with it. Warmer weather and increased inventories of liquid oil gas in Europe contained a sharper spike in the gas price which trended below EUR 100 per MWh from mid-April until the end of the month.

According to the World Bank data, as of mid-January the **price of thermal coal** (from South Africa) maintained its strong growth from the previous months amid the nascent economic recovery from the pandemic, which prompted demand for fossil fuels, notably coal. In March, the coal price reached its new record of around USD 290 per tonne, because the European economies looked for an alternative to Russian energy supplies. After dipping in January and February, the prices of mineral fertilisers (ammonium, nitrogen, nitrate, phosphates, carbonates and sulphates) posted a sharp increase in March due to dampened production in Europe. Stepped-up coal production in China was interrupted by new lockdowns due to the spreading virus, wherefore the price of coal again increased as of mid-April and reached a record high USD 300 per tonne at the end of the month.

The prices of metals and minerals also recorded significant growth during Q1, having gone up 21% according to the World Bank index. Once the Ukraine crisis broke out, the prices of nickel were the first to respond, posting a sharp increase in Q1 (around 70%), as well as the prices of palladium, whose inventories have been significantly depleted given that Russia is among the world's main producers of these metals. At the level of Q1, the prices of the iron ore and aluminium also rose a lot (by 30% each). After the fall in the inventories in the London Stock Exchange, the price of copper touched its historical maximum in March, and the prices of zinc, tin and lead also went up. In April, the prices of the majority of metals and minerals (except zinc and lead) were slightly lower than in March, though still higher than at end-2021.

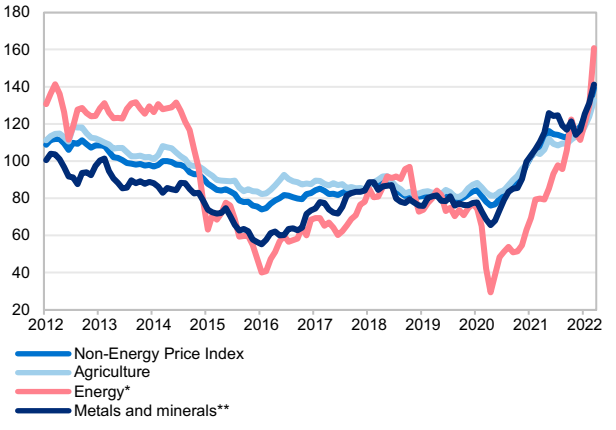
After dipping in December, the **global food prices** (measured by the FAO index) went up slightly in January (1.4%), owing to the higher prices of plant oils and dairy, while the opposite effect came from the fall in the price of wheat amid rising inventories in Australia and Argentina, and lower prices of sugar amid favourable prospects of sugar export from India, Thailand and Brazil. In February and March, the global food prices accelerated their growth (4.3% and 12.6% respectively), notably the prices of plant oils (sunflower, palm, soybean and canola), triggered by dampened export due to the conflict in the Black Sea region. A strong rise in the **prices of cereals** in Q1, of which Serbia is a net exporter, was dictated by the increase in global prices of wheat and raw cereals, caused by the disrupted supply from Ukraine and, to a lesser extent, from Russia. In addition, the prices of corn, barley and sugar cane touched their highest levels on record, since the FAO index began to be published (1990). The prices of meat (notably pork) also went up in Q1 due to

Chart IV.6.19 **Natural gas and thermal coal price movements**
(end-of-quarter)



Sources: Refinitiv and World Bank.

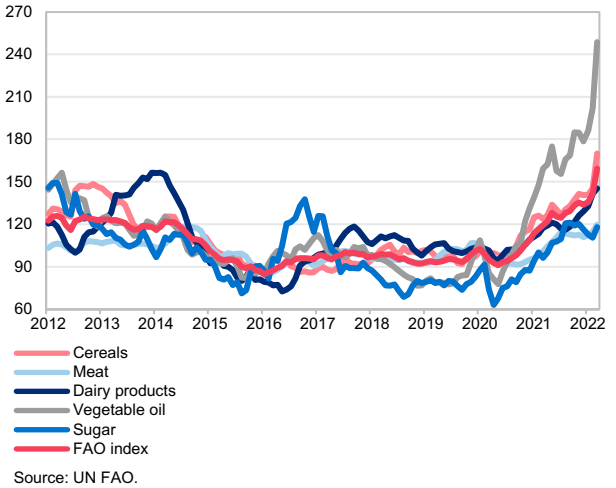
Chart IV.6.20 **World Primary Commodity Price Index**
(2010 = 100)



Source: World Bank.

* Crude oil, natural gas and coal.
** Copper, aluminium, iron ore, lead, nickel, zinc and tin.

Chart IV.6.21 **World Food Price Index**
(in nominal terms, 2014−2016 = 100)



Source: UN FAO.

the dampened supply in Western Europe, while a larger rise in the price of sugar, due to the higher price of ethanol and the appreciation of the Brazilian real against the dollar, was mitigated by favourable prospects for sugar production and export from India. Relative to record levels in March, the prices of food in the global market edged down slightly in April (by 0.8%), mostly due to the fall in the prices of plant oils and the lower prices of cereals, while the prices of sugar, meat and dairy continued up.

V Projection

In view of the negative effects produced so far by the Ukraine conflict, primarily its impact on global energy prices, and the resulting outlook revisions by leading international institutions for the global economy, including the euro area and countries of the region with which we have the most important trade ties, the NBS has revised Serbia's GDP projection for this year to the range of 3.5–4.5%, down by 0.5 pp from what we expected in February. Assuming that geopolitical tensions would not heighten further and that the global gas supply will not be discontinued, we have kept our medium-term GDP growth projection of 4% to 5% per annum unchanged. A favourable medium-term outlook is sustained by Serbia's preserved full macroeconomic, financial and fiscal stability, underpinned by the exchange rate stability which will help minimise the negative effects of external factors, the same as during the pandemic. This will be propped up by the excellent financial results of the Serbian economy achieved even in the years of the pandemic, as well as the preserved business, investment and consumer confidence thanks to the undertaken economic measures, continued steady FDI inflow and record-high government investment in road, railway and utility infrastructure.

Under the central May projection, y-o-y inflation is expected to be on a declining path in H2 this year, return within the bounds of the target tolerance band most probably in H2 next year and continue to slow until the end of the projection horizon. Having gained further momentum since our February projection amid the outbreak of the Ukraine conflict, rising global prices of primary commodities, energy and imported inflation will continue, in the short term, to place inflationary pressures on prices of non-food products and services, as well as food products, other than fruit and vegetables, though these are expected to wane during the projection horizon. In addition, the arrival of the new agricultural season ought to topple fruit and vegetable prices from their current high levels. Inflation pressures will also be soothed by the effects of the earlier tightening of monetary conditions and, in the short term, also by the effects of the Government's economic measures directed at food and energy prices in the domestic market.

Uncertainties surrounding the inflation and GDP projections are mostly associated with the duration of the Ukraine conflict, the resulting impacts on global energy and food prices, duration of global value chain disruptions and, to a smaller extent, also with the outcome of the agricultural season at home. Overall, the risks to the inflation projection are judged to be skewed to the upside and those to the GDP projection – to the downside.

Initial conditions and projection assumptions

The economic effects of the Ukraine conflict will **hurt global growth prospects** through the trade and financial channels. Rising energy and primary commodity prices will give additional impetus to global inflation. In its April WEO, the IMF projects global growth at 3.6% this and the next year – 0.8 and 0.2 pp lower than in the January forecast, respectively. In addition to the conflict in Ukraine, lockdowns in key trade and manufacturing hubs in China to contain the spread of the coronavirus have also affected the global growth outlook, as they could cause new bottlenecks in global production chains. According to the IMF, downside risks to the projection dominate – including from a possible worsening of the conflict in Ukraine, escalation of sanctions on Russia, a

Table V.0.1 **Revision of IMF forecasts of real GDP growth for 2022 and 2023**
(in %)

	2022		2023	
	Previous projection	New projection	Previous projection	New projection
World	4.4	3.6	3.8	3.6
Euro area	3.9	2.8	2.5	2.3
Germany	3.8	2.1	2.5	2.7
Italy	3.8	2.3	2.2	1.7
USA	4.0	3.7	2.6	2.3
Russia	2.8	-8.5	2.1	-2.3
China	4.8	4.4	5.2	5.1

Sources: IMF WEO (April 2022) and IMF WEO (January 2022).

Table V.0.2 **Key projection assumptions**

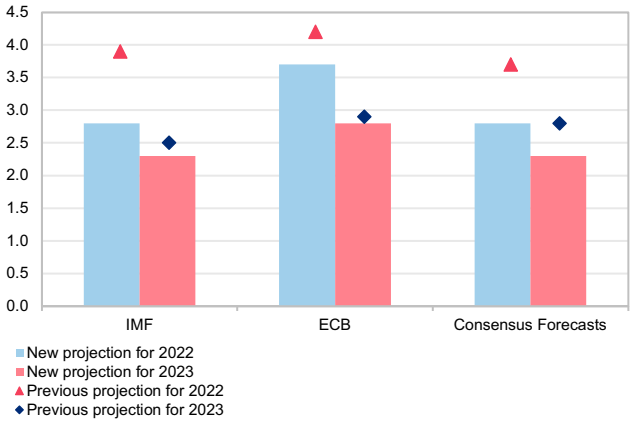
	2022		2023	
External assumptions	Feb	May	Feb	May
Euro area GDP growth	4.0%	2.9%	2.5%	2.3%
Euro area inflation (average)	3.1%	6.5%	1.6%	2.4%
3M EURIBOR (December)	-0.2%	0.3%	0.4%	1.3%
International prices of primary agricult. commodities (Q4 to Q4)*	-3.6%	17.1%	-5.1%	-8.9%
Brent oil price per barrel (December, USD)	81	99	75	87
Internal assumptions				
Administered prices (Dec. to Dec.)	5.0%	4.7%	4.5%	7.0%

* Composite index of soybean, wheat and corn prices.

Sources: ECB, Consensus Forecasts, Euronext, CBOT, Bloomberg and NBS.

Chart V.0.1 **Revisions of euro area GDP growth projections for 2022 and 2023**

(in %)



Sources: IMF, ECB and Consensus Forecasts.

sharper-than-anticipated deceleration in China due to a zero-COVID strategy, and a renewed flare-up of the pandemic should more virulent virus strains emerge.

Given euro area's strong trade and financial ties with Russia and its high energy dependency, it was euro area's growth that was revised down the most (excluding revisions of Russia's and Ukraine's growth). According to the IMF, **euro area** GDP growth will measure 2.8% this and 2.3% next year, which is 1.1 pp and 0.2 pp lower than in the January forecast, respectively. **USA's GDP** growth forecast was marked down from 4.0% in January to 3.7% in April, reflecting faster-than-anticipated withdrawal of monetary support and policy tightening to rein in inflation, and the impact of weaker trade with countries exposed to the consequences of the Ukraine conflict. **China's GDP** growth forecast was also slightly downgraded (by 0.4 pp) to 4.4% in April, amid frequent lockdowns in manufacturing and trading hubs which have weighed on faster recovery in private consumption, as well as issues in real estate development and fewer investments expected in this sector. **Russia's GDP** is expected to fall by 8.5% in 2022 and decline further next year, though not so much (-2.8%).

When it comes to the euro area as our main trade partner, aside from the direct negative effects of the Ukraine crisis and sanctions against Russia on foreign trade and the energy security, it has also faced a number of indirect effects stemming from lingering supply chain disruptions, which have particularly affected the automobile industry. Because of their relatively large manufacturing sectors which are impacted by production bottlenecks and greater dependence on energy imports from Russia compared to other European economies, the biggest downgrades in the IMF's forecasts for this year refer to **Germany** (by 1.7 pp to 2.1%) and **Italy** (by 1.5 pp to 2.3%). Consensus Forecasts' April projections of euro area growth in 2022 and 2023 are the same as the IMF's, down by 1.2 pp and 0.2 pp, respectively, from three months ago. When it comes to our main partners within the euro area, Consensus Forecasts project German growth to be slightly higher than in the IMF projection – 2.2% this and 2.5% next year, noting that the projection assumes that the energy needs will be fully met. Similarly, Consensus Forecasts place Italy's growth at 2.7% in 2022 and 1.9% in 2023. In addition to the effects on energy imports, Italy's tourism revenues are also expected to decline, as is the sale of luxury goods due to financial sanctions imposed on Russia. In its March projections, the ECB marked down euro area's GDP growth projection from 4.2% before the outbreak of the Ukraine conflict to 3.7%. It noted that, in the severe scenario involving potential disruptions in the supply of Russian gas to Europe,

growth could measure only 2.3%. The ECB Survey of Professional Forecasters places euro area GDP growth at 2.9% this and 2.3% next year, which is similar to the estimates put forward by the IMF and Consensus Forecasts.

The IMF has revised its forecast of **GDP growth in Europe's emerging economies** (excluding Belarus, Russia, Turkey and Ukraine) down by 1.5 pp to 3.2% in 2022, due to the spillover of the negative effects of the Ukraine crisis to external and domestic demand, lingering supply disruptions and vigorous growth in energy prices fuelling inflationary pressures. For this reason, most central banks have continued to tighten their monetary policies. According to the IMF, the greatest growth downgrades for 2022 refer to Croatia, Romania, Slovakia, Hungary and the Czech Republic, and they range from 3.1 pp to 1.3 pp, as these countries are highly integrated in global production chains, primarily in the automobile industry, and, with the exception of Croatia, highly dependent on energy imports from Russia. Relative to three months ago, Consensus Forecasts marked down GDP growth projections for all Central and Southeast European countries. Markdowns range from 0.3 pp for Serbia to 2.2 pp for the Czech Republic. The speed of recovery of this region will depend primarily on energy prices and availability, pace of recovery of the euro area which is its most important trade partner, and monetary policy measures taken in the face of mounting inflationary pressures.

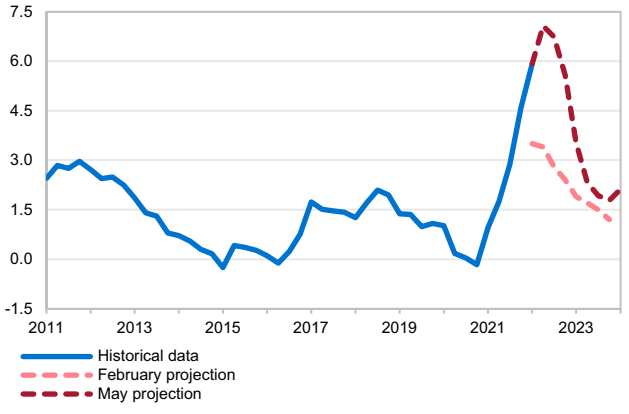
Table V.0.3 **Economic growth estimate by country**
(real growth, in %)

	January 2022		April 2022	
	2022	2023	2022	2023
Poland	4.7	4.0	3.9	3.4
Czech Republic	4.2	3.9	2.0	3.1
Hungary	4.9	3.8	3.8	3.5
Romania	4.5	4.4	2.7	4.1
Slovakia	4.2	4.4	2.6	3.7
Slovenia	4.0	3.4	4.0	2.8
Croatia	4.6	3.7	3.3	3.5
Bulgaria	3.6	3.8	2.7	3.2
Albania	4.0	3.9	3.5	3.5
Bosnia and Herzegovina	3.5	3.3	3.1	3.0
North Macedonia	4.1	3.5	3.3	3.2
Montenegro	5.1	4.0	4.1	4.2
Serbia	4.4	4.0	4.1	3.7

Source: Consensus Forecasts.

Reflecting the exit from the pandemic, global inflation accelerated last year, only to gain fresh momentum after the Ukraine conflict escalated and sanctions on Russia were imposed. As these two countries produce many primary commodities (energy, agricultural commodities, metals, minerals…), a powerful new wave of price surges occurred from end-February. This impact was heightened by the dollar's strengthening against the euro and, by extension, against the dinar, pushing dinar-denominated prices of primary commodities further up. As a result, **inflation continued to rise well above expectations in most countries** and inflation projections for the coming period are accordingly revised up. In March 2022, consumer price growth in the USA was the highest in the past four decades, in the euro area – since 1999 (the year of its launch), and in Germany, euro area's largest member – since 1981.

Chart V.0.2 **Assumption for euro area inflation**
(y-o-y growth, in %)

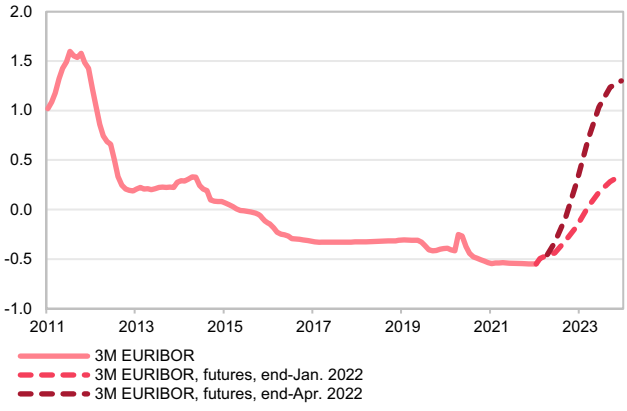


Source: NBS calculation based on projections of relevant institutions.

In the present circumstances, global inflation projections are shrouded in great uncertainty. In their baseline scenarios, central banks assume that the situation in the primary commodity markets will calm down gradually and that inflation would gradually subside towards the

target level during 2023, supported by the expected normalization of production chains. This is corroborated by lower prices of overseas transport in the past few months, though the latest anti-epidemic lockdown measures in China could reverse this trend. Consistent with the Consensus Forecasts' projection, we assumed **euro area inflation** to average 6.5% this and 2.4% next year.

Chart V.0.3 **Expected 3M EURIBOR**
(p.a., in %)



Source: Bloomberg.

Elevated inflation has prompted many central banks to tighten their monetary policies. In November, the **Fed** decided to begin reducing the volume of its asset purchases under the QE programme. In March and May, it raised its Fed funds rate by 25 bp and 50 bp, respectively (to 0.75–1.0%) and decided to start the asset roll-off process, i.e. to reduce its balance sheet. It is also more likely that monetary policy will be tightened sooner than anticipated. Under the March projections, the median level of the Fed funds rate is expected to be 1.9% at the end of this and 2.75% at the end of the next year, according to FOMC members. Monetary policy tightening is not only supported by high inflation but also by the US unemployment rate falling to 3.6% in March and the continuing high GDP growth projection for the current year of 2.8%.

As inflationary pressures in the euro area are milder (core inflation is two times lower in the euro area than in the USA), the **ECB's** decisions and rhetoric continue to be more moderate than the Fed's. In its March meeting, the ECB decided to scale back its net asset purchases (APP) in Q2 from the previously announced EUR 40 bn per month. Monthly net purchases under the APP will amount to EUR 40 billion in April, EUR 30 billion in May and EUR 20 billion in June, while the amounts for Q3 will be subsequently determined. The ECB has so far not changed its main interest rates. Though ECB members have different views regarding the speed of monetary normalisation, the first interest rate hike is not expected until September 2022. Consistent with futures, our projection assumes that the three-month EURIBOR will turn positive late this year.

Chart V.0.4 **Assumption for Brent oil prices**
(USD/barrel)

Source: Bloomberg.

Global oil prices, which have been rising since May 2020, shot past USD 130 per barrel at one point in March, for the first time since 2008. They later subsided, particularly after the US decided to intervene in the oil market by releasing oil from the strategic reserves. At the time of making this projection, the oil price is around USD 107 per barrel. Consistent with market expectations (oil futures) which we use as our projection assumption, the global oil price will edge down gradually to USD 99 per barrel in late 2022 and USD 87 per barrel in late 2023.

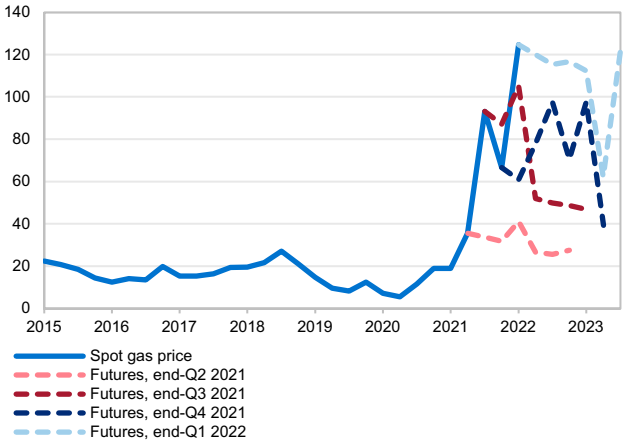
This projection is nearly 10 dollars higher than our February projection.

Though it settled down and even dipped slightly early in the year, the **global price of natural gas** climbed to new record-high levels in early March, in response to the Ukraine conflict. It decreased slightly in mid-March as talks between Russia and Ukraine began, but remains higher than at the start of the year and will most probably stay at a similar level until year end. No major decrease in the price of gas is expected before the end of the winter heating season next year. Prices of electricity and coal, as alternative energy sources, are expected to display a similar trend. Higher gas prices in the past months hit Europe particularly hard, especially Germany which is greatly dependent on Russian gas imports. However, as the Western sanctions at present do not include the energy sector, our baseline scenario assumes that gas supply from Russia will not be discontinued.

Thanks to contracts signed with Russia in late 2021, Serbia will be paying for most of its gas at a price unchanged from last year until mid-2022. Given the Western sanctions and Russia's anticipated economic downturn, there is a risk that we may be paying more for gas than so far in the coming period. The **price of electricity** for the domestic corporate sector was raised by around 50% late last year and will remain at that level until mid-2022 subject to Government decision. The electricity price for households has not been changed since February 2021. As the expenses of companies in the energy sector have swelled, our projection assumes that gas and electricity prices for households will be adjusted this year which, together with higher prices of utilities and cigarettes resulting from regular annual excise adjustments, would lead to administered price growth of 4.7% this and 7% next year. In addition to these direct effects, the indirect effects on disposable income and, by extension, on inflation and economic growth will differ, depending on the share of energy expenses in total expenses of corporates and households, and are therefore more difficult to measure. We assumed that the Government decree on reducing excises on petroleum products will remain in effect in some form until year-end.

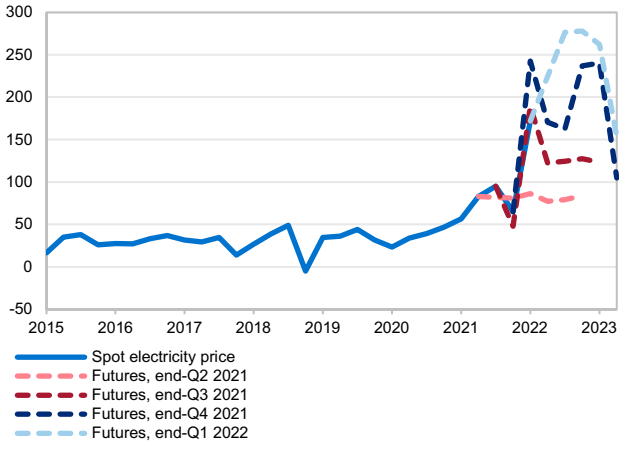
In late February and early March, almost all **global prices of metals and minerals** recorded substantial growth. Though these prices subsided from mid-March due to the start of Ukraine talks and the flare-up of the coronavirus in China, their end-March level was still much higher than at end-2021. The high level and volatility of these prices place notable additional pressure on producer price

Chart V.0.5 **Benchmark natural gas price for Europe, Dutch TTF hub**
(EUR/MWh)



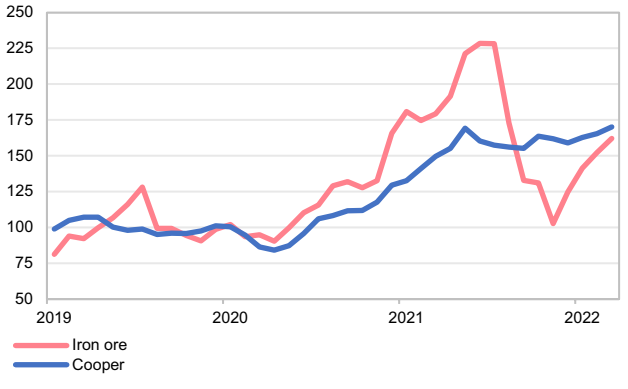
Source: Reuters.

Chart V.0.6 **Benchmark electricity price for Europe, German power baseload**
(EUR/MWh)



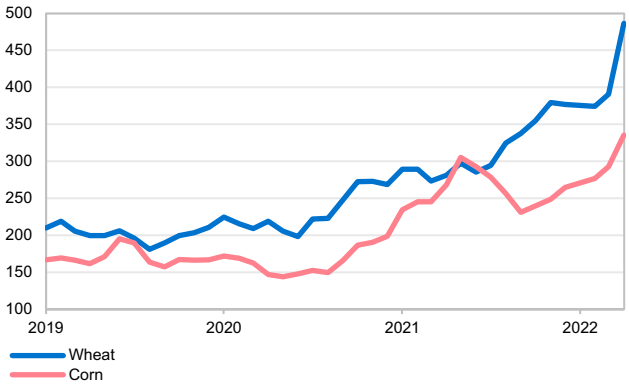
Source: Reuters.

Chart V.0.7 **Iron ore and base metal prices in the global market**
(index points, 2019 = 100)



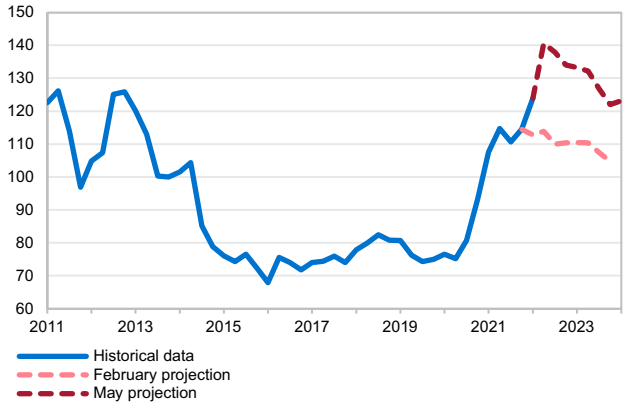
Source: *Commodity Prices*, World Bank.

Chart V.0.8 **Wheat and corn prices in the global market**
(USD/mt)



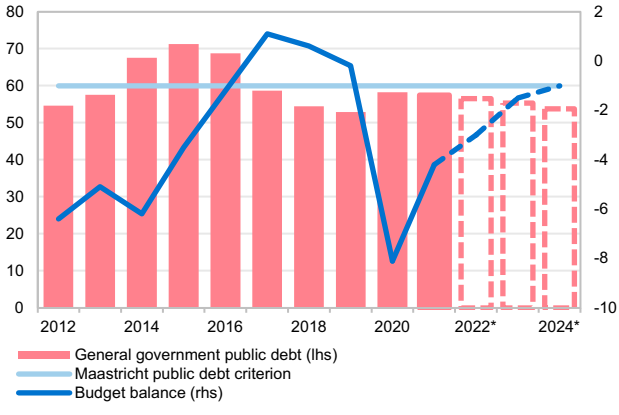
Source: *Commodity Price Data*, World Bank.

Chart V.0.9 **Assumption for international prices of primary agricultural commodities**
(Q4 2013 = 100)



Sources: CBOT, Euronext and NBS calculation.

Chart V.0.10 **Budget balance and general government public debt**
(in % of GDP)



Source: Ministry of Finance.

* Projection from the revised Fiscal Strategy for 2022 with Projections for 2023 and 2024.

growth. Nickel prices went up the most, by over 50%, but substantial growth was also recorded by the prices of aluminium, iron ore, palladium, etc. As in the case of energy products, these prices are expected to remain elevated, though slightly below their present level.

Fuelled by geopolitical developments, global prices of **primary agricultural commodities** saw a further powerful upswing since our last *Report*. In late February and early March, the price of wheat gained more than 60%. It later retreated to a lower level and is currently around 36% higher than in our previous projection. Somewhat softer growth was recorded by corn and soybean prices. At present, agricultural commodity prices are at their highest level since 2013. Our projection of these prices relies on futures data from global stock exchanges, according to which they should post annual growth of around 17% this year, followed by a decline of around 9% next year. Consistent with this, we expect **prices of primary agricultural commodities in the domestic market**, which mirror movements in their global counterparts, to display similar dynamics. Prices of agricultural commodities are projected at a higher level relative to the previous projection.

When it comes to factors affecting domestic demand, the **medium-term fiscal framework**, defined in the revised Fiscal Strategy for 2022 with Projections for 2023 and 2024, sets out a more restrictive fiscal policy than in the past two years, despite the continuation of relatively high **government capital investment expenditure** (projected at around 7% of GDP) and increased investment in the health system. Going forward, **pensions and public sector wages** are projected to **increase moderately**, while **corporates' tax burden** will be somewhat **reduced**. Altogether, this should help sustain the living standard of households and provide more funds for new investment. At the same time, the projected narrowing of the general government deficit from around 3% of GDP this year to around 1% in 2024 and its turning into a primary surplus ought to ensure a **sustainable return of public debt to a downward trajectory**, as well as support the flexibility of public finances and the capacity to respond to potential new external shocks or crises. A responsible fiscal policy combined with a favourable growth outlook and preserved macroeconomic stability should also contribute to a lower **risk premium of the country and the attainment of investment-grade rating** expected in the projection horizon. For the time being, the fiscal deficit is not expected to depart from the planned level to any significant degree, through deficit of RSD 68 bn was recorded in the first three months, making up around 34% of the fiscal deficit planned for this year

under the revised Fiscal Strategy. Though the government lowered revenues from excises on petroleum products, revenues on other accounts went up, primarily in respect of better than anticipated VAT collection.

According to our estimate, **wage growth** this year will be somewhat faster in the **private** than in the public sector, sustained by a higher minimum wage (RSD 201.22 per hour). As employment continues up, though at a somewhat slower pace than in the previous projection, the **total wage bill** will increase by around 12%, remaining the key source for financing consumption.

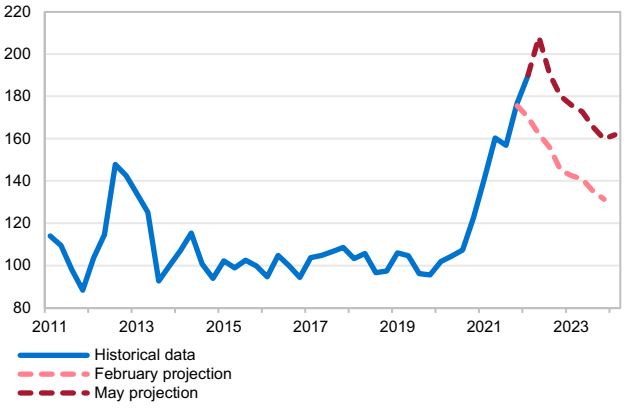
Our new projection assumes that this year's **agricultural season** will be average. This is our assumption for the coming years as well. As last year's agricultural output was roughly 5% lower due to adverse weather conditions, this year we expect agriculture to provide a mild positive contribution to GDP. With the arrival of the new agricultural season, cost-push pressures in the production of processed food and meat are expected to ease gradually, while fruit and vegetable prices should be lower than last year.

GDP projection

After growing at an exceptionally robust pace last year, economic growth continued to be relatively dynamic in the initial months of 2022, primarily as a result of the high carry-over effect from Q4 2021. This was reflected in the majority of available monthly indicators. However, subdued electricity and coal production and elevated energy imports resulted in somewhat lower GDP growth in Q1 than we expected in February. According to the SORS estimate, GDP posted y-o-y growth of 4.3% and q-o-q growth of 0.6% s-a in Q1. On the production side, GDP growth was led by the service sectors and industry, and on the expenditure side – by private consumption and fixed investment and the build-up of inventories, particularly after the decision on a temporary cap on export of primary agricultural commodities.

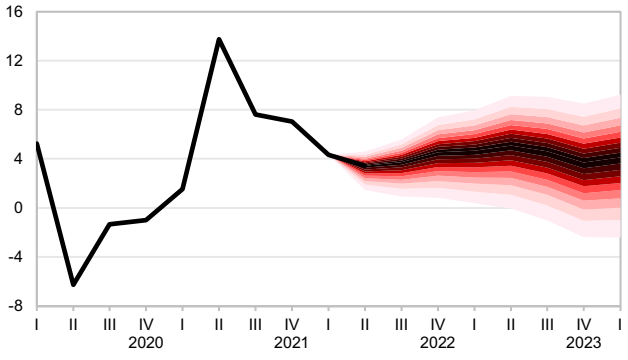
In view of the negative effects produced so far by the Ukraine conflict, primarily its impact on global energy prices, and the resulting outlook revisions by leading international institutions for the global economy, including the euro area and countries of the region with which we have the most important trade ties, the NBS has revised Serbia's GDP projection for this year **to the range of 3.5–4.5%**, down by 0.5 pp from what we expected in February. Assuming that geopolitical tensions would not heighten further and that the global gas supply will

Chart V.0.11 **Assumption for domestic prices of primary agricultural commodities***
(Q4 2013 = 100)



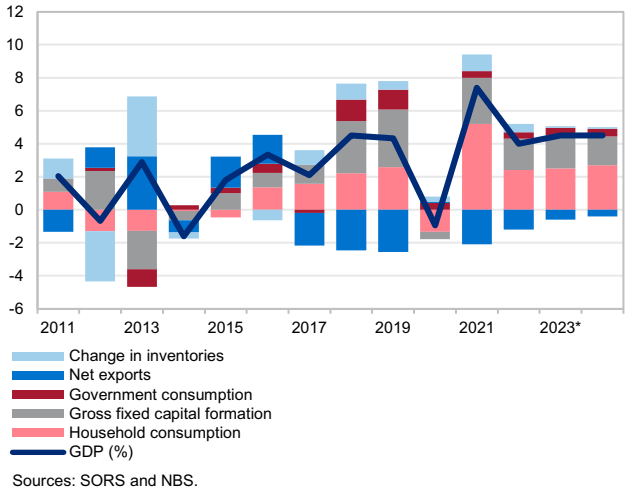
Sources: Commodity Exchange Novi Sad, CBOT, Euronext and NBS calculation.
* Measured by the composite index of wheat, corn and soybean prices.

Chart V.0.12 **GDP growth projection**
(y-o-y rates, in %)



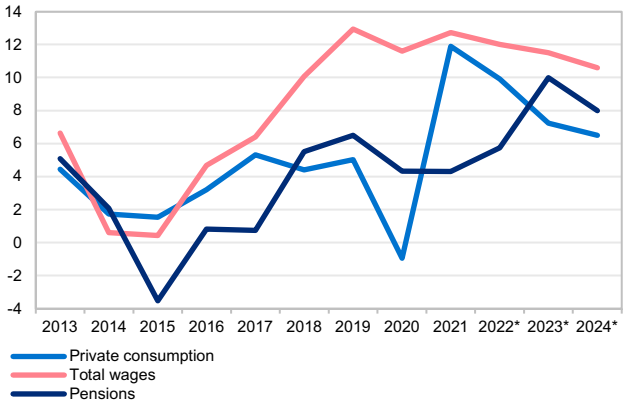
Source: NBS.

Chart V.0.13 **Contributions to real GDP growth**
(in pp)



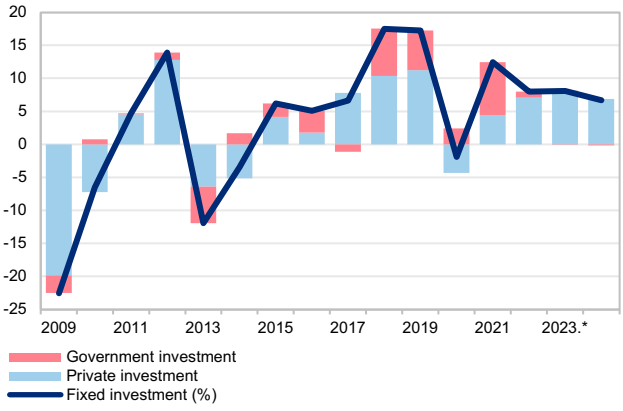
Sources: SORS and NBS.
* NBS estimate.

Chart V.0.14 **Rate of growth in private consumption and its sources**
(y-o-y rates , in %)



Sources: SORS and NBS calculation.
* NBS estimate

Chart V.0.15 **Fixed investment**
(y-o-y growth, in pp)



Sources: SORS and NBS calculation.
* NBS estimate.

continue, **we have kept our medium-term GDP growth projection of 4% to 5% per annum unchanged**. A favourable medium-term growth outlook is also sustained by the anticipated implementation of planned projects, mostly in the area of road, railway and utility infrastructure. This refers to over 40 projects planned to be implemented in the next ten years, worth a total of around EUR 25 bn (gross value added of around EUR 5 bn). This should result in roughly 0.5 pp higher GDP[17] growth at year level.

According to our estimate, the largest contribution to GDP growth this year and in the medium term will come from **personal consumption**. Its contribution this year is estimated at around 2.4 pp and is expected to stay similar or edge up slightly in the medium term. **Going forward, consumption will rise more slowly than total GDP, ensuring its medium-term sustainability.** Consumption growth will be further propped up by the anticipated continued rise in employment and wages, most notably in the private sector. This will reflect the higher minimum wage, though income disposable for consumption will be somewhat lower than what we expected in February due to elevated energy and food costs. Though their share in GDP is expected to go down, pensions will remain another important source for consumption and are projected to go up in line with the so-called Swiss formula. Other sources will include one-off fiscal benefits provided early in the year and incentives to promote childbirth. Credit standards should remain relatively favourable and encourage growth in loans intended for consumption, despite some monetary policy tightening by the NBS and the ECB's expected monetary tightening.

Government consumption is also expected to provide a mildly positive contribution to GDP (around 0.5 pp p.a.) amid substantial outlays for healthcare planned in the coming period as well. We expect that, in line with the Fiscal Strategy, outlays for wages and procurement of goods and services will rise at a moderate and measured pace, and that care will be taken that their share in GDP does not increase.

In the face of mounting geopolitical tensions, much higher prices of energy and raw materials and subdued external demand, we judge the global risk propensity to have slightly diminished, which could lead to a somewhat lower than expected investment growth rate in Serbia this year. FDI inflow in this and the coming years is still

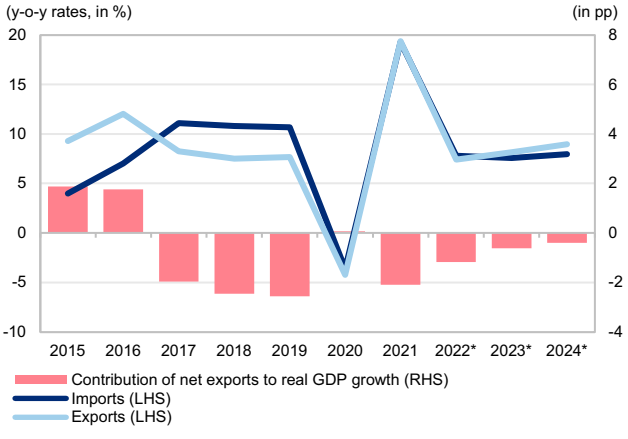
[17] For more details, see: Text box 2, *Inflation Report* – August 2021.

expected to stay relatively robust and, as so far, diversified by project and mostly directed at tradable sectors thanks to the country's favourable macroeconomic outlook. Taking into account this, and the increased profitability of companies amid not only preserved but also expanded production capacities during the pandemic, supported by timely and large-scale monetary and fiscal stimuli, we estimate that own sources remain the key factor behind **private investment growth**. Funds for new investments in property development and transport and utility infrastructure will also come from loan sources, although a gradual normalisation of the ECB's monetary policy is expected in the medium term, possibly inflating the cost of borrowing in the foreign currency. Given the announced implementation of planned infrastructure projects financed by the government and the projected maintaining of a relatively high share of government capital expenditure in GDP (around 7% per annum), **government investment** is also expected to provide a mild positive contribution this year, which could become neutral in the coming years due to the high base. With all this in mind, we estimate that the **contribution** of fixed investment **to economic growth will remain relatively high in both 2022 and in the medium term (around 1.9 pp per annum on average)**. The share of fixed investment in GDP should, therefore, exceed the desirable level of 25% next year and continue up.

We now expect this year's contribution of **inventories** to GDP growth to be positive, though we previously anticipated a negative contribution. Inventories' growth has been propped up by the forming of strategic commodity reserves, primarily of food and energy products, and the temporary cap on the export of cereals.

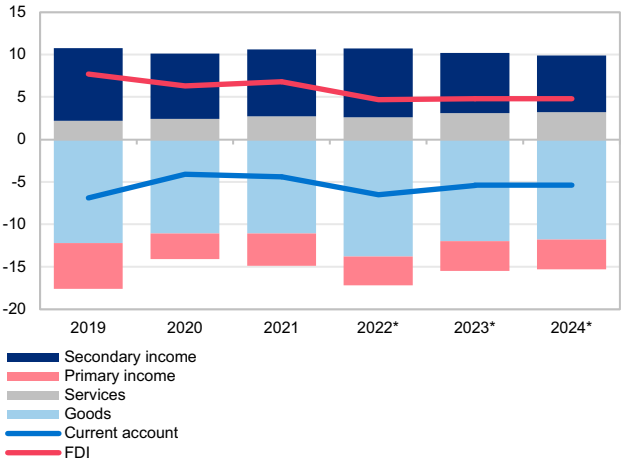
In 2022, we expect the contribution of **net export** to GDP to be negative amid higher import of energy and equipment for investment projects implementation, but also due to subdued external demand. Russia and Ukraine are not our significant export trade partners, though we depend on Russia for our energy purchases. For this reason, we do not expect reduced demand from these countries to produce any major direct negative effects on our exports. What we do anticipate are indirect effects, through the impact of the Ukraine conflict on the global growth outlook, i.e. external demand, and global prices of energy and primary commodities. Lower external demand will partly be offset by rising export supply based on earlier investments, but the higher negative contribution of net export than in our previous projection will result primarily from stepped up energy import and, to a smaller extent, also from lower cereals export on account of the

Chart V.0.16 **Real export and import growth**



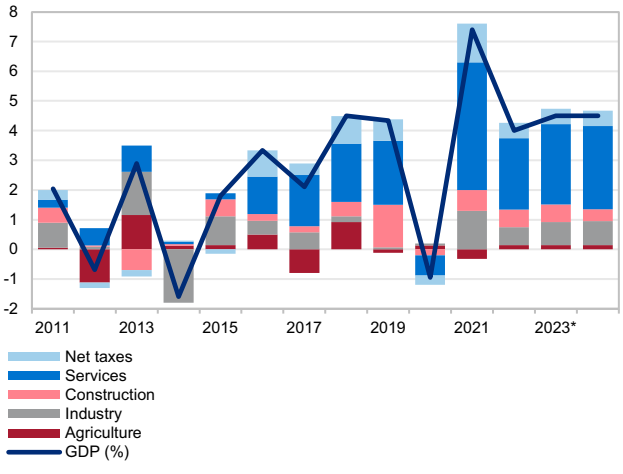
Sources: SORS and NBS.
* NBS estimate.

Chart V.0.17 **Current account and FDI projection**
(in % of GDP)



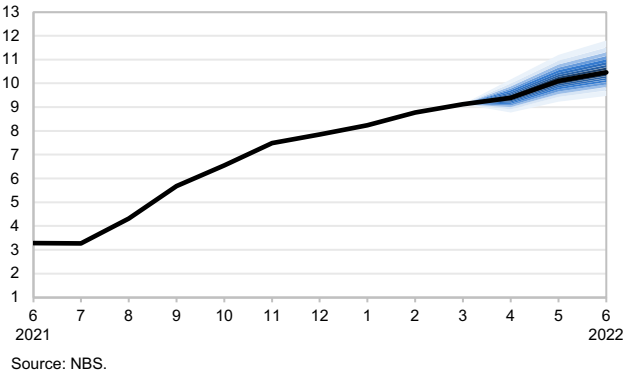
Source: NBS.
* NBS projection.

Chart V.0.18 **Contributions to real GDP growth, production side**
(in pp)



Sources: SORS and NBS.
* NBS estimate.

Chart V.0.19 **Short-term inflation projection**
(y-o-y rates, in %)



Source: NBS.

temporary cap on export. The deficit will be reined in by somewhat softer growth in consumption and investment than anticipated in February. Consequently, we project the share of the current account deficit in GDP to measure around 6.5% this year, instead of less than 5% which we expected in February. It is, however, important to note that this continues to be a deficit which, both in our and in the IMF's estimate, **ensures external sustainability**. External sustainability will also be propped up by the fact that the current account deficit will, for its major part, be covered by net FDI inflow. Over the medium term, the current account deficit is expected to contract gradually towards around 5% of GDP, also supported by more favourable terms of trade.

On the **production side**, service sectors are expected to provide the largest positive contribution to GDP growth, reflecting their high share in GDP and continued growth in personal consumption. Still, this contribution is expected to be slightly lower than in our previous projection due to less disposable income and heightened global uncertainty. Mining, manufacturing and construction are expected to provide almost the same (0.6–0.7 pp each) positive contribution this year. If the agricultural season is average, agriculture will also provide a mild positive contribution. Activity in the mining sector expanded faster than anticipated in February, as new production capacities were activated and metal ore exploitation, particularly of copper, went up. On the other hand, the manufacturing industry is expected to provide a slightly lower than anticipated contribution amid subdued external demand and the effects of global value chain disruptions, as well as elevated production costs. Manufacturing industry growth continues to be led by the activation of new and the expansion of existing capacities and the resulting rise in export supply. Construction growth is propped up by the implementation of infrastructure projects, primarily in the area of transport and utility infrastructure, and higher demand for real estate. The only negative contribution to growth this year is expected from the energy sector, due to downsized production of electricity and coal.

Inflation projection

Short-term inflation projection

Under the central projection, headline inflation will continue slightly up in Q2 as well, primarily reflecting high production costs fuelled by elevated global prices of energy, primary agricultural commodities and industrial raw materials. The start of the new agricultural season will work in the opposite direction, with fruit and vegetable prices expected to decline from May after

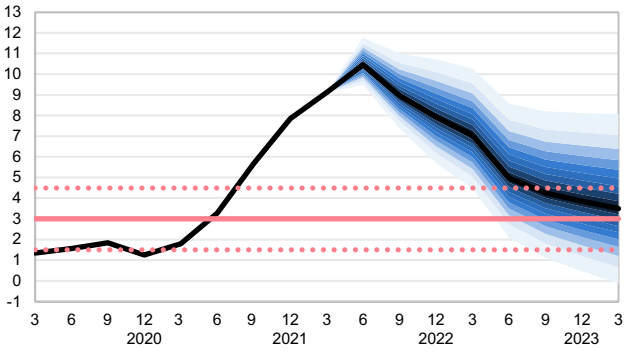
rising notably in the prior period due to the last year's drought.

In the short term, the risks to the inflation projection are mostly associated with unprocessed food prices and movement in global prices of oil and other primary commodities.

Medium-term inflation projection

Under the central May projection, we expect y-o-y inflation to be on a declining path from H2 2022 and to retreat within the bounds of the target tolerance band during H2 2023. The escalation of the Ukraine conflict immediately after we published our previous *Inflation Report* added greatly to the already high inflationary pressures generated by global prices of primary commodities (energy, agricultural commodities, metals, minerals…). Therefore, in our new projection, inflation will return within the bounds of the target tolerance band at a later time. The current fragmentation of global markets will certainly not have a favourable effect on the normalisation of global value chains which was expected to occur before the end of this year and represented an important assumption in our previous projection.

Chart V.0.20 **Inflation projection**
(y-o-y rates, in %)



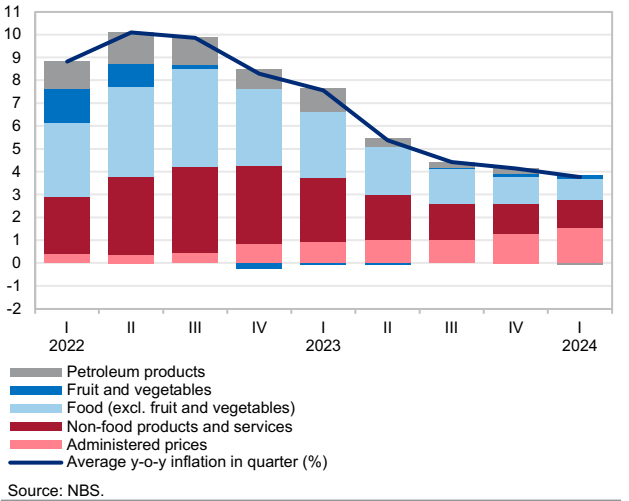
Source: NBS.

The fan chart depicts the probability of various inflation outcomes in the next eight quarters. The central projection is within the darkest central band and the probability that inflation would lie in it is 10%. Each following shade includes 10% probability, which means that outturns of inflation somewhere within the entire fan chart are expected with probability of 90%. In other words, the probability that inflation in the next eight quarters would lie somewhere outside the band in the chart is 10%.

Despite powerful global inflationary pressures, inflation in Serbia could start declining soon, as **fruit and vegetable** prices are expected to go down. After posting vigorous growth last year due to the drought and high summer temperatures, these prices are currently extremely high. If the new agricultural season is average, prices of fruit and vegetables should decrease, slashing the contribution of this group of prices to y-o-y inflation from Q2. From Q4, this contribution ought to turn negative.

Contrary to our expectations, the contribution of **petroleum product prices** to inflation will remain high during most of the current year, though it could subside gradually from H2. The powerful surge in global oil prices after the outbreak of the Ukraine conflict pushed petroleum product prices further up. The RS Government reined in this increase by cutting excises. If, consistent with futures, the global oil price should decrease gradually in the coming period, the contribution of petroleum products to inflation could start drifting down from mid-year. The projection assumes that the temporary lowering of excises from February this year could be lifted early next year, which would temporarily discontinue the trend of decline in the petroleum product prices growth rate in Q1 2023.

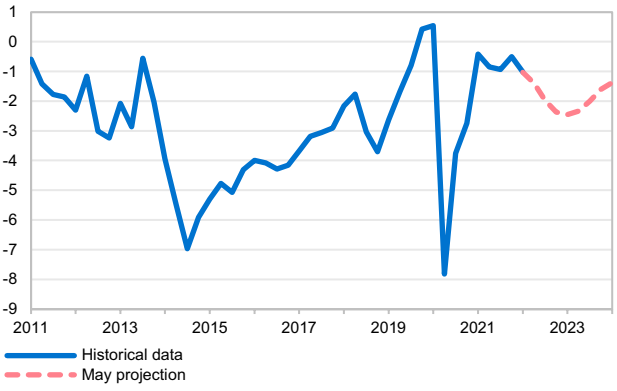
Chart V.0.21 **Contributions to y-o-y inflation by component**
(average y-o-y rates, in pp)



Source: NBS.

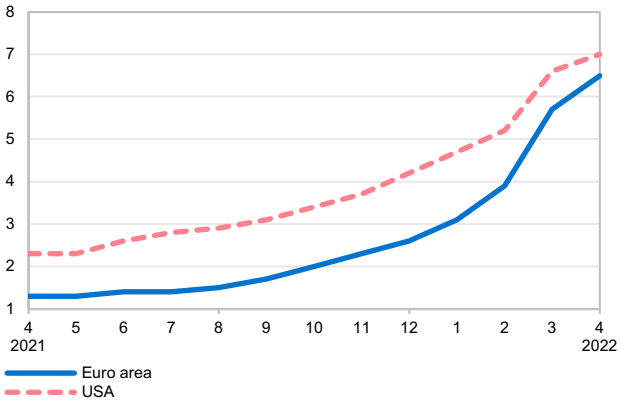
Rising costs in food production, resulting from elevated global prices of oil and primary agricultural commodities

Chart V.0.22 **Output gap projection***
(in % of potential output)



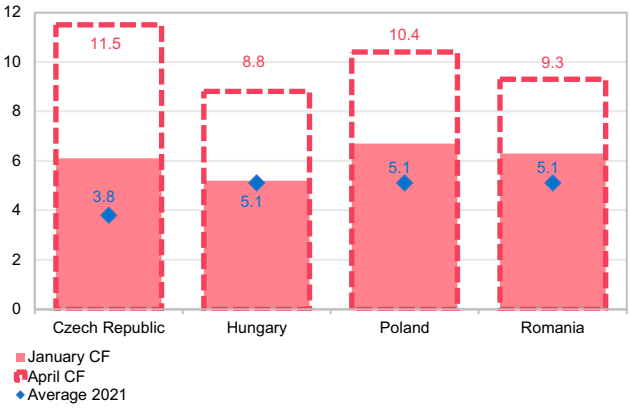
Sources: SORS and NBS.
* Output gap is estimated on the basis of NAVA.

Chart V.0.23 **Revisions of inflation forecasts for 2022 in the past year**
(y-o-y growth, in %)



Source: Consensus Forecasts.

Chart V.0.24 **Revision of inflation forecasts for 2022**
(in %)



Source: Consensus Forecasts.

(corn, wheat, soybean), pushed up **food inflation** at home, though this was somewhat moderated by the Government's decision to cap the prices of basic foodstuffs. We estimate that the indicator of cost-push pressures in food production (excluding fruit and vegetables) – the real marginal costs gap (measured by deviation from trend of the ratio of input prices to prices of final food products) – is at its highest level since 2012 and has made a key contribution to projected growth in food product prices. Notable departure of this indicator from its neutral level customarily signals its expected decline in the future and a lessening of cost-push pressures on food prices, which could set food inflation on a downward path soon. Prices of food products will partly also hinge on how long the cap on prices of basic foodstuffs will remain in place.

Non-food inflation is expected to display a similar trend, though this component's 2022 maximum will be lower than that of food inflation. The prices of this product category depend on the prices of numerous import components and raw materials and the functioning of global value chains. For this reason, we expect the rise in non-food inflation, which was more pronounced in the last two quarters, to continue in the coming months as well amid higher imported inflation and raw material shortages, as well as elevated energy and transport prices. As the moderation of global value chain disruptions expected this year ought to help relieve the pressure on domestic prices of non-food products, the contribution of this group of prices to headline inflation is anticipated to go down from end-2022.

By contrast to other inflation components, the contribution of **administered prices** should remain broadly unchanged from 2021 this year and rise moderately next year, consistent with our assumption of a moderate increase in energy prices for households in H2 2022 and 2023.

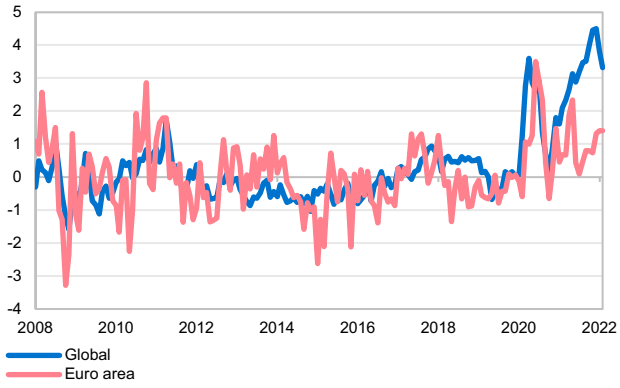
In terms of inflation factors, **prices from the international environment remain the key generator of inflationary pressures in Serbia**. The economic consequences of the Ukraine conflict have so far reflected in particular on prices of primary commodities which had even previously been high, reflecting the recovery of global demand from the initial shock of the pandemic and different supply-side constraints. Still, market expectations are that these prices will normalise gradually over the coming period. Thus, after surging by 28% in the past year, until and including April, **prices of agricultural commodities** could fall by around 5% in the next 12 months, gradually toppling costs in food

production from their current, exceptionally high levels. Expectations for **energy prices** are similar. As a consequence of the energy crisis from Q4 last year, these prices are extremely high, but the market expects them to go down once the heating season is over. In March the global oil price hit its highest level since April 2013 (monthly average) and is expected to decrease gradually in 2022, which would make an important contribution to y-o-y inflation decline in Serbia.

Inflation is running at decades-high levels in leading world economies and countries of the region. Inflation projections are accordingly being revised up. Particularly concerning is the leap in energy prices in the euro area as it could greatly affect disposable income, consumption and economic activity in the coming months. This is compounded by material, equipment and labour force shortages and high transport costs. Most central banks, however, still estimate that supply and demand will gradually become more balanced and that the rise in global primary commodity prices will not continue. Inflation pressures ought also to be alleviated by the normalisation of the Fed's and, late in the year, probably also the ECB's monetary policy. All these factors will help relieve pressures from imported inflation on Serbian prices during the year, which is an important factor behind the inflation's projected return to the target.

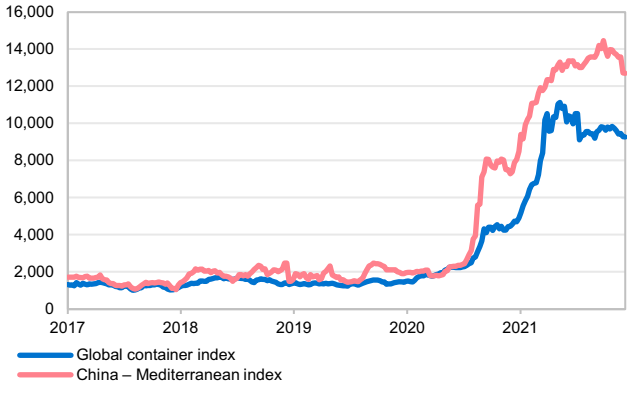
We still do not expect any major inflationary pressures from **aggregate demand**. This is propped up by the current global growth slowdown, particularly in the euro area as our main foreign trade partner. As a result, we expect the negative output gap to deepen somewhat in the short term and measure around -2.4% late this and early next year, helping ease demand-side inflationary pressures. Its gradual closing is expected in the coming period. Though monetary conditions have been further tightened since the previous *Report*, the terms of financing for corporates and households remained relatively favourable supported by extremely low interest rates in the euro area which are not expected to rise much until the end of the projection horizon. Though not on the same scale as in the past two years, domestic demand growth will also be sustained by higher public sector wages and pensions and by government capital expenditure, while the anticipated robust performance of government capital expenditure, primarily in transport and utility infrastructure, will also lead to higher potential output. Along with the anticipated rise in external demand, these factors ought to result in a gradual closing of the output gap.

Chart V.0.25 **Global supply-chain pressures**
(index, 2022)



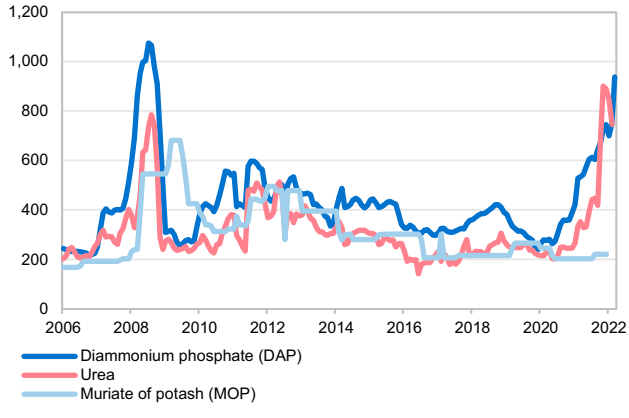
Source: Bloomberg.

Chart V.0.26 **Container transport price**
(USD)



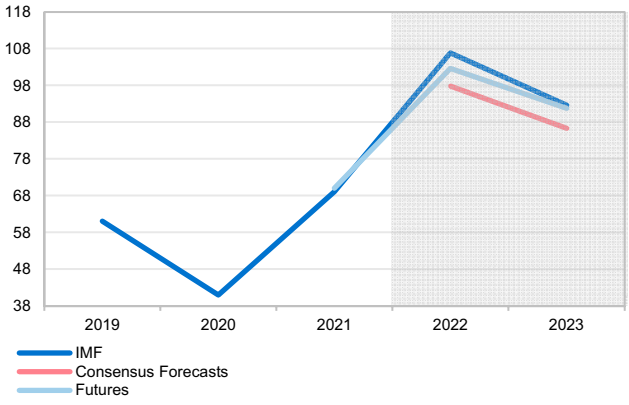
Source: Freightos.

Chart V.0.27 **Global prices of agricultural fertilisers**
(USD/mt)



Sources: Bloomberg and World Bank.

Chart V.0.28 **Global oil price projections**
(USD/bbl)



Sources: IMF, Consensus Forecasts, Bloomberg.
Note: Shaded area denotes the projection.

Risks to the GDP and inflation projection

When it comes to the risks surrounding the GDP and inflation projection, it should be noted that uncertainty regarding the path of the coronavirus pandemic and the emergence of new virus strains has greatly diminished since the previous *Report* **and that, at present, geopolitical developments relating to the Ukraine situation and the deepening of the energy crisis on that account are the key source of uncertainty surrounding the new projection**. They will have the decisive impact on the intensity and duration of cost-push pressures from the international environment and the speed of global economic growth. The achievement of Serbia's macroeconomic projections will also depend on the normalisation of monetary policies of leading central banks. To a smaller extent, uncertainty also refers to the domestic market, notably the success of this year's agricultural production, speed of domestic demand growth and the duration of measures to contain the prices of energy and basic foodstuffs.

As macroeconomic projections in the baseline scenario are based on the assumption that geopolitical tensions will not be additionally heightened and that the supply of gas and oil in Europe will not be discontinued, **we judge the risks to the GDP projection to be tilted to the downside and those to the inflation projection – to the upside.**

Downside risks to **global economic growth** intensified further, primarily reflecting geopolitical uncertainty. Any further escalation of conflict and sanctions could dent export demand for our products and, by extension, slacken growth in manufacturing and exports. Though the coronavirus epidemic in Europe is waning and many countries are abolishing almost all mobility restrictions, the zero-COVID policy in China has led to fresh lockdowns in large areas of this country, including Shanghai, the financial hub. If lockdowns were to last, this could place fresh strain on the already disrupted global production chains. In view of these risks, especially the pronounced geopolitical tensions, **we judge the risks to the inflation and GDP projection in respect of global economic growth to be slightly tilted to the downside**.

In view of Serbia's strong trade and financial ties with the **euro area, its growth outlook** is particularly important for our country. In addition to the effects which euro area demand has on export and manufacturing output, the costs of domestic production will also reflect the **pace of resolution of global supply chain disruptions and the energy crisis** in the euro area, through their impact on the availability and prices of imported raw materials in

production. Since there is a possibility that global value chain disruptions and the energy crisis could be extended, **there is a risk of more durable inflationary pressures in the euro area, leading to elevated production costs in Serbia, lower economic growth and higher inflation**.

Geopolitical developments have impacted global **energy** markets in particular. Energy prices will be under the sway of the Western sanctions against Russia and their possible expansion, disagreement over how to pay for energy products (in roubles or dollars), countries' position towards the import of energy products from Russia, transit options, etc. The risks are somewhat smaller in the case of oil than in the case of gas and electricity, as there are alternative supply sources and it is possible to intervene by releasing strategic reserves, as was recently the case in the USA. When it comes to gas, however, European countries do not have many substitution options, and the price of this energy product is subject to greater risk. It should also be noted that gas inventories had dropped below their several years' average even before the Ukraine crisis which, coupled with a powerful surge in demand guided by record-high prices of emission permits, generated the upward trend in the price of this energy product even before the new shock. That is why we judge that **the risks to inflation regarding global oil prices are symmetric and those regarding natural gas and electricity – tilted to the upside. Conversely, elevated production costs fuelled by higher energy prices are a downside risk to GDP growth**.

The fact that Russia and Ukraine **are major producers of primary agricultural commodities, metals and minerals** greatly amplifies risks in this respect as well. On the one hand, subdued global growth could bring down the prices of primary commodities. On the other hand, the deepening of geopolitical tensions and, in case of prices of primary agricultural commodities, also adverse weather conditions, could trim their supply in the global market. In addition, Russia is also the dominant producer of mineral fertiliser components, the prices of which greatly affect the costs of agricultural production worldwide, Serbia included. For these reasons, due to the length of the crisis and the related geopolitical divisions, the risk of departure of global prices of primary commodities is very high and, **in the case of inflation, probably tilted to the upside**. When it comes to the impact on GDP, the rise in most global prices of primary commodities has pushed up production costs and lowered disposable income for investment, while at the same time contributing to stronger export of agricultural commodities and metals. As a result, we judge the **risks to GDP in this respect to be balanced**.

Robust inflation growth in the most advanced global economies in the prior period makes it increasingly likely that **leading central banks would tighten their monetary policies more than expected**. If monetary policies of leading central banks are tightened more than anticipated, global financing conditions would become more stringent, reducing capital inflow to emerging economies and generating depreciation pressures on this account. In that case, the higher cost of borrowing in a foreign currency would weigh on domestic demand through lower disposable income, while the preserved relative stability of the dinar exchange rate would greatly diminish inflationary pressures on account of reduced capital inflows. If inflation in advanced economies returns to lower levels sooner than expected and/or if economic growth slows further, monetary stimuli by leading central banks could last even longer than expected, as could favourable global financing conditions.

When it comes to domestic factors, the **character of the agricultural season** is the greatest risk to the inflation projection. We have assumed it to be at the level of the long-term average after last year's below-average season. As yields in agriculture greatly depend on meteorological conditions, departures are possible in either direction and **we judge the risks to the inflation and GDP projection on this account to be symmetric**.

The risks to the inflation projection are also associated with the **pace of domestic demand growth**. Smaller proceeds from lower net export demand could lead to less disposable income and slower than anticipated employment and wage growth, with negative implications for domestic demand. Possible major hikes in the prices of food and energy in the global market would work in the same direction. With this in mind, **we judge the risks to the GDP and inflation projection to be slightly skewed to the downside**.

As **administered price growth** at home could be either somewhat lower or somewhat higher than anticipated, **the risks to the inflation projection on this account are symmetric** as well. Namely, the RS Government could decide to extend the period in which prices of staple foodstuffs are capped and to defer the collection of a part of fuel excises until further notice. On the other hand, prompted by the robust surge in global energy prices, the Government may have to make greater adjustments to prices of energy products, particularly electricity, for households. We do not expect that the extended caps on staple foodstuffs would have a major impact on producers, as they refer to a small number of products. Still, higher or lower growth in administered prices could,

to some extent, reflect on the income available for consumption. As a result, we **judge the risks to the GDP projection to be symmetric on this account as well**.

As the key risks to inflation and other economic developments continue to come from the international environment, the NBS will continue to monitor and analyse trends in international commodity and financial markets and to evaluate their impact on our economy. Depending on geopolitical developments and the movement in key inflation factors from the domestic and international environment in the coming period, the NBS will estimate whether there is a need to tighten monetary conditions further or whether the effects of past tightening ensure a sustainable return of inflation within the target

Table V.0.4 **Key risks to the GDP and inflation projection**

Risk	Possible channels of influence	Estimate of the risk effect on GDP relative to the baseline scenario	Estimate of the risk effect on inflation relative to the baseline scenario
Geopolitical tensions and events in Ukraine	– Further conflict escalation and stricter sanctions could weigh on external demand for our products; – Heightening of geopolitical tensions would inflate production costs amid continued rise in the prices of energy and primary commodities and deepening of global supply chain disruptions.	↓	↑
Euro area economic growth and inflation outlook	– Slower growth in the euro area would result in subdued external demand for our exports and fewer demand-side pressures on inflation; – Higher than anticipated inflation in the euro area would lead to elevated imported inflation, pushing up production costs.	↓	↕
Global crude oil price (Serbia is a net importer)	A fall/rise in the global oil price spills over to lower/higher petroleum product prices and produces a disinflationary/inflationary effect. This fall/rise also produces second-round effects as it spills over to a decrease/increase in other prices, mostly through transport costs. Also, through higher/lower disposable income, it leads to a rise/fall in demand and may produce inflationary/disinflationary effects.	↕	↕
International gas and electricity prices (Serbia is a net importer of gas and a net exporter of electricity)	Rising global prices of gas and electricity have inflated production costs, trimming funds available for investment and producing second-round effects on inflation, as they can spill over, through higher costs of production of many domestic industrial products (most notably metals, construction materials, chemical products, processed food, etc.), to an increase in their prices, which may partly be offset by subdued demand for these products.	↓	↑
International prices of primary agricultural commodities and metals (Serbia is a net exporter)	The rise in the prices of primary agricultural commodities and metals produces inflationary effects. Though this inflates production costs and decreases income available for investment, the effects on GDP would most probably be neutralised by higher exports, as Serbia is a net exporter of primary agricultural commodities and metals.	↕	↑
Monetary policies of leading central banks and developments in the international financial market	Greater/lower than expected monetary tightening by leading central banks would lead to higher/lower risk aversion of investors and reduced/increased capital flows to emerging economies.	↕	↕
Agricultural season	A better/worse than average agricultural season would lead to increased/reduced supply of agricultural products and may produce disinflationary/inflationary pressures.	↕	↕
Disposable income	Lower disposable income resulting from elevated production costs and slower than anticipated growth in employment and wages would lead to a slackening of domestic demand growth and more disinflationary pressures.	↓	↓
Administered prices, Government measures to cap food and energy prices	Lower/higher growth in administered prices leads to lower/higher inflation and more/less disposable income for consumption and investment.	↕	↕

Note: ↑ means a more inflationary effect relative to the baseline scenario, ↓ lower economic growth, ↓ a more disinflationary effect, and ↕ that the risks to the projection are symmetric relative to the baseline scenario.

tolerance band over the projection horizon. Going forward, the NBS's monetary policy priority will remain to maintain price and financial stability in the medium term, while supporting further economic growth and development, a further rise in employment and a favourable investment environment. The NBS is ready to respond promptly using all available monetary policy instruments in case of materialization of any of the risks that would keep inflation above the upper bound of the target tolerance band for a longer period of time.

Text box 4: Revision of macroeconomic projections for Serbia and alternative scenario

The outbreak of the conflict in Ukraine, which led to the escalation of the energy crisis, a further rise in the prices of primary agricultural commodities and key inputs in industrial production, construction and some services, as well as the deepening of problems in supply chains – were the key reasons behind revisions to global macroeconomic projections, including those for Serbia.

Given the revised projections of international institutions for the euro area, Serbia's main foreign trade partner, and the direct effects of the Ukraine conflict on the Serbian economy, compared to its expectations from February, the NBS now projects a somewhat lower real GDP growth, a somewhat higher current account deficit and higher inflation for 2022. These projections for Serbia take into account GDP growth and inflation in the euro area projected by international institutions and are conditioned on the assumption that there will be no further tightening in the current geopolitical tensions and the associated energy crisis, i.e. no additional negative effects on global growth, trade, capital flows and global inflationary pressures.

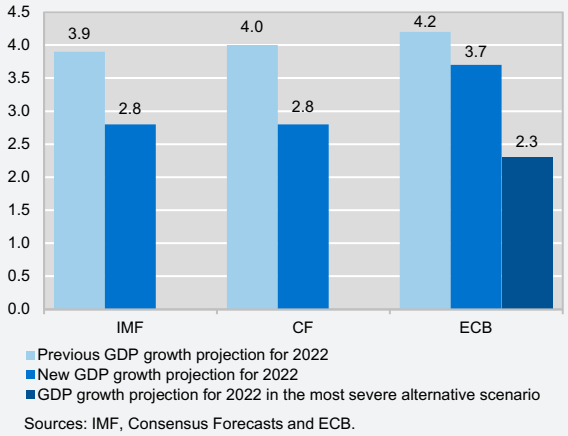
This text box will briefly present the Ukraine conflict effects on global economic movements to date, the assumptions underlying the projection, and the new projections by both the NBS and international institutions. It will also dwell on the effects of a potential alternative (adverse) scenario from the ECB's March projections on Serbia's economic growth and inflation.

Ukraine conflict effects on global economic growth and inflation so far

The Ukraine conflict is a significant negative shock for the global economy, its effects and potential risks being particularly pronounced in case of advanced European economies. According to the April World Economic Outlook, the IMF revised the projections of global economic growth for 2022 to 3.6%, which is a 0.8 pp decrease relative to the January Report. At the same time, the IMF also revised the euro area growth projection for 2022, from 3.9% to 2.8%, which is consistent with the Consensus Forecasts April projection, and we used these assumptions in our baseline scenario for the May projection. Previously, the ECB, in its March projections, revised the projected euro area GDP growth down from 4.2%, envisaged before the outbreak of the Ukraine conflict, to 3.7%, underlining that in the worst-case scenario growth could amount to only 2.3%.

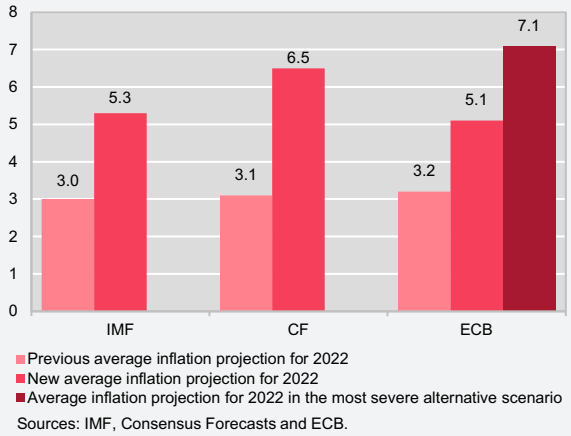
The IMF revised the projection of average inflation in the euro area in 2022 from 3.0% in January to 5.3%, while Consensus Forecasts in its April projection expects inflation at 6.5% this year. A month earlier, the ECB revised the same projection from 3.2% to 5.1%, pointing out in its report that in the worst-case scenario average euro area inflation this year could reach as much as 7.1%. In that case, average inflation in 2023 would amount to 2.7%, while a significant drop could not be expected before 2024 (1.9%).

Chart O.4.1 **Revisions of euro area GDP growth projections for 2022**
(in %)



Sources: IMF, Consensus Forecasts and ECB.

Chart O.4.2 **Revisions of euro area average inflation projections for 2022**
(in %)



Sources: IMF, Consensus Forecasts and ECB.

Macroeconomic projections for Serbia – baseline scenario

Considering the negative effects of the Ukraine conflict so far and the revised assessments of global economic trends by most important international institutions, the NBS revised its macroeconomic projections for Serbia – downward for GDP and upward for inflation and current account deficit. Nevertheless, we expect that the preserved full macroeconomic, financial and fiscal stability in Serbia, anchored, among other things, by exchange rate stability, will help to minimise the negative effects of the current geopolitical crisis, as was the case during the pandemic. Working in that direction will also be the excellent financial results of the Serbian economy achieved even during the pandemic years, high liquidity, the preserved business, investment and consumer confidence thanks to the undertaken economic measures, continued stable FDI inflow, and the record high level of government investment into road, railway and utility infrastructure.

Revision to inflation projection

According to the central projection from May, y-o-y inflation in H2 is expected to follow a downward path and touch the level of around 8% by the end of the year, while returning within the bounds of the target in H2 next year. Such inflation trajectory, though declining, is around 3 pp higher than in the February projection. The main reason for the deviation is the upswing in food and energy prices, caused by the armed conflict in Ukraine, which also pushed Q1 inflation to a level higher than projected in February. This conflict additionally aggravated the problems in global supply chains and put upward pressures on the already high global prices of oil, other energy products, as well as cereals, oil plants, milk and sugar, metals and the major part of raw materials in industry (including iron, neon, palladium and titanium), all of which increased further the already high producer costs of industry products for the domestic market. It should also be kept in mind that in the previous months global inflation was impacted not only by factors on the supply side, but also those on the demand side. These, among other, included global pileup of inventories of all types of goods and changes in consumer behaviour in crisis situations such as this one, past monetary and fiscal stimuli, the rise in private sector wages, as well as the loosening of containment measures and the weakening of coronavirus effects.

As for the **key assumptions underlying the new inflation projection for Serbia**, based on the movements of corn, soybean and wheat futures, in our May projection we assume that the prices of **primary agricultural commodities** this year will go up by around 17% annually, i.e. considerably above the February projection, which envisaged a mild annual fall in these prices. On this account only, the inflation projection is higher by around 0.4 pp relative to the February projection. **The global oil price** increased significantly since the outbreak of the conflict in Ukraine, standing at USD 107 per barrel at the moment of finalising the projection, which is a rise of around 13% relative to mid-February, when it moved at around USD 95 per barrel. Taking into account futures movements, in our May projection we assumed the average oil price of USD 102.6 per barrel in 2022, a price rise of around 21% compared to the February projection in which the average oil price was projected at around USD 85 per barrel. In addition, the key inflationary factors relative to the February projection are also **higher projected inflation in the euro area for 2022**, going up by close to 3 pp from February, **the rise in the risk premia of emerging economies, including Serbia, and the strengthening of the US dollar against the euro**. Besides, the conflict in Ukraine reflected on the **price of fertilisers** and their availability, which could jeopardise agricultural production in Serbia and the region, generating further risks to the outlook for inflation, GDP growth and the current account deficit. In this regard, the Government, jointly with the Chamber of Commerce, invested maximum efforts to ensure sufficient quantity of fertilisers from other markets and decided to increase subsidies to agricultural producers, thus largely dodging the risk of insufficient quantity of fertilisers for the current agricultural season.

In our estimate, due to the very pronounced risks stemming from the international environment as to the prices of food and energy, the overall risks to the inflation projection are skewed to the upside. On the other hand, thanks to the preserved exchange rate stability, core inflation will remain below headline inflation this year.

Revision to GDP growth projection

Due to a somewhat lower GDP growth outcome in Q1 (4.3% y-o-y) compared to what was expected in February (around 5% y-o-y), and potential direct and indirect adverse impact of the Ukraine conflict on future growth, the NBS revised its GDP growth projection for 2022 from 4–5% to 3.5–4.5%.

Looking on the production side, the rise in global and domestic prices of energy, food and Industrial inputs will lead to a somewhat slower growth of manufacturing and construction sectors. Besides, these projections take into account the reduced coal and electricity production. Speaking of services, some negative effects may be expected in transport, trade,

tourism and catering, while positive effects are also possible owing to the transfer of a part of production of tradable sectors and services from Russia and Ukraine to Central and Southeast European countries.

On the expenditure side, the Ukraine conflict could be expected to negatively impact the risk premium and global financial conditions, thus leading to a somewhat slower growth of investment and exports, while on the other hand, changes in consumer and corporate behaviour could reflect on consumption and inventories growth in the short run. A faster rise in consumption in the short run will surely be spurred by the higher than expected rise in private sector wages, though, on the overall, the income disposable for consumption will be lower than previously expected due to higher energy and food prices and possibly also due to a slower rise in employment, while the piling up of inventories in the short run will certainly be supported by the restrictions on agricultural exports and creation of strategic inventories of energy and food.

On balance, the risks to the GDP projection are judged to be asymmetric to the downside due to extremely heightened risks from the international environment. On the other hand, Serbia's capacity to attract FDI and record high levels of planned capital expenditure should enable Serbia to once again minimise the effects of the global crisis.

Revision to current account deficit projection

In view of the actual current account deficit in Q1, downward revisions to euro area growth projections for 2022, and upward revisions to projections of inflation and export and import prices for Serbia (prices of energy, food, processed food, metals and raw materials for industry), the NBS revised the current account deficit projection for 2022 from below 5% to around 6.5% of GDP.

The higher current account deficit will mainly reflect higher energy prices because of the Ukraine conflict, as well as a larger volume of energy imports. At the same time, exports will be under the sway of increasingly complex problems in global supply chains and the shrinking of external demand amid global growth slowdown and limited exports of agricultural products on the one hand and significantly faster growth in export prices on the other hand. The rise in export supply on account of past investments should also soften the negative effect of demand-side factors on our exports. Taking into account these expected effects, the nominal growth of goods and services exports is projected to be higher than in the previous projection, but imports will nevertheless grow to a greater degree, primarily due to higher energy prices, which will push the trade deficit moderately up.

Speaking of other current account components, the Ukraine conflict could lead to a somewhat higher deficit in the primary income account and a somewhat lower surplus in the secondary income account compared to what was expected in February. Still, despite increased global uncertainty, the current account deficit is expected to be largely covered by net FDI inflow which is projected at around EUR 2.8 bn.

Macroeconomic projections of relevant international institutions for Serbia for 2022

Given that 2022 growth projections for our most important trade partners, particularly the euro area, were revised down, international institutions also revised down Serbia's economic growth projection. The IMF thus projects Serbia's economic growth at 3.5%, down by 1.0 pp from what was expected in January. Compared to regional peers, this is almost the smallest downward revision. In April, Consensus Forecasts revised Serbia's GDP growth for this year by only 0.3 pp to 4.1%, which is a minimum correction compared to other countries in the region.

Table O.4.1. **Overview of projections for Serbia: GDP, inflation and CAD**

		IMF		Consensus Forecasts		World Bank	
		WEO October 2021	WEO April 2022	January 2022	April 2022	RER autumn 2021	RER spring 2022
Real GDP (in %)	2022	4.5	3.5	4.4	4.1	4.5	3.2
	2023	4.5	4.0	4.0	3.7	4.0	2.7
Average inflation (in %)	2022	2.7	7.7	4.0	7.5	2.6	7.0
	2023	2.5	4.7	2.7	4.1	2.6	5.3
CAD (% of GDP)	2022	-4.4	-6.1	-4.2	-5.4	-5.0	-6.4
	2023	-4.6	-5.7	-4.8	-5.4	-4.9	-5.8

Sources: IMF, Consensus Forecasts and World Bank.

According to the IMF, Serbia's medium-term GDP growth will reach 4%. Consensus Forecasts has slightly lower expectations for 2023 than the IMF, while the World Bank projects lower growth.

As for inflation projection, consistent with the NBS's expectations, all international institutions observed expect inflation to slow down next year. For example, the IMF expects average inflation of 7.7% this year, similar to other countries of the region, a figure higher than projected three months ago due to considerably higher prices of energy, raw materials for industry and food. The IMF also expects inflation to slow down in the next two years, to 4.7% and 3.7%, respectively.

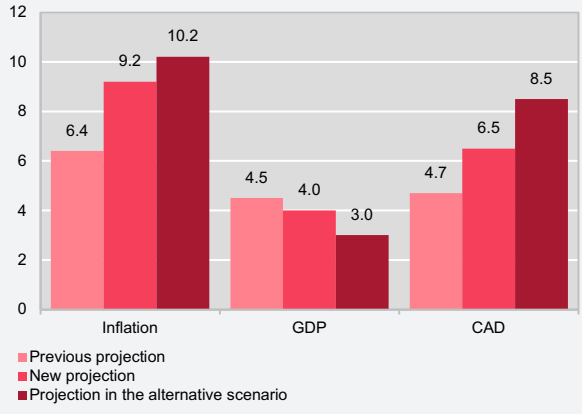
Projections of the current account deficit for this year are similar to that of the NBS, with the exception of Consensus Forecasts, which released a lower deficit figure (USD 3.2 bn).

Alternative scenario

Our current projection of key macroeconomic indicators operates on the assumption that the current geopolitical tensions will not tighten further and that problems in supply chains and global inflationary pressures will start to weaken in H2, which is also the estimate and assumption of the majority of leading central banks and international institutions. However, bearing in mind the uncertainty as to the effects of the Ukraine conflict on euro area economic outlook, in its March projections the ECB developed two additional alternative scenarios (the so-called adverse and severe scenarios), whose materialisation would reflect negatively on Serbia.

In the adverse scenario, the ECB assumes conflict escalation and imposing of additional sanctions on Russia, entailing greater negative effects on the Russian economy, additional problems in supply chains, still higher prices of energy and primary agricultural commodities, and – in the worst case – potential cut-off of Russian energy to Europe, which in the short run could only partly be compensated for by alternative sources of energy. Such a scenario would mean shorter or longer disruptions in production across a range of industry and services branches, and a significant increase in the already elevated global uncertainty, which could result in pronounced volatility in financial markets, disruptions in capital flows, a high increase in the risk premium and costs of financing and the contraction of investments.

Chart **O.4.3 Revisions of macroeconomic projections for Serbia for 2022**
(in %)



Source: NBS.

According to ECB assessments, real growth of euro area GDP in such a scenario could be lower by additional 1.2 pp in 2022, while inflation could be 0.6 pp higher than in the baseline, which would probably reflect on economic movements in Serbia to a similar degree.

In addition to the assumptions from the alternative ECB scenario, which entails the prolongation and further escalation of the geopolitical situation and more drastic worsening of the situation in the energy market, as well as around 1.2 pp lower GDP growth rate compared to the baseline, our alternative scenario is built on the assumption that the average price of oil at the annual level would amount to around USD 117 per barrel, while the prices of primary agricultural commodities would rise by around 27%. This scenario also assumes a higher risk premium compared with the baseline. In the alternative scenario, Serbia's economic growth in 2022 would move from 2.5% to 3.5%, with a lower contribution from consumption and investments than in the baseline. The current account deficit, in our assessment, would move from 8% to 9% due to unfavourable terms of trade, while inflation in the projection horizon would be higher by around 1 pp compared to the baseline.

Keeping all the above in mind, and primarily uncertainty as to the length and intensity of the Ukraine crisis and the related effects on the volume of global trade, global prices of energy and primary commodities and consumer and investor confidence, risks to the inflation projection in the baseline scenario are judged to be asymmetric to the upside, while risks to the GDP projection are judged to be asymmetric to the downside. In any case, the length of the Ukraine conflict and sanctions on Russia currently pose the greatest risk to the projection and will largely determine whether there will be long-term negative effects on macroeconomic movements globally and in Serbia, which will drive the decisions of economic policy makers.

Table A
Indicators of Serbia's external position

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Q1 2022
EXTERNAL LIQUIDITY INDICATORS (in %)																		
FX reserves/imports of goods and services (in months)	6.1	9.0	7.5	5.4	9.7	8.4	8.8	7.7	7.6	6.6	6.7	6.2	5.4	5.4	5.7	6.1	6.0	4.7
FX reserves/short-term debt	177.0	265.1	250.6	162.6	220.6	191.2	299.9	237.3	268.6	294.0	256.4	234.0	202.1	210.9	275.6	230.5	265.4	
FX reserves /GDP	22.1	34.8	30.5	22.9	32.6	31.7	34.0	32.4	30.7	27.9	29.1	27.8	25.4	26.3	29.1	28.8	30.9	26.2
Debt repayment/GDP	4.7	9.7	9.6	10.1	12.1	11.3	11.7	12.3	12.6	13.3	11.1	12.3	10.9	11.3	10.0	5.8	8.8	
Debt repayment/exports of goods and services	19.8	36.2	37.5	37.5	48.8	37.5	37.3	36.0	33.0	32.7	25.2	25.9	22.2	22.9	19.7	12.2	16.4	
EXTERNAL SOLVENCY INDICATORS (in %)																		
External debt/GDP	56.2	55.2	55.1	58.8	68.6	74.5	68.1	76.1	70.4	72.4	73.4	72.0	65.1	62.2	61.4	65.8	68.5	
Short-term debt/GDP	12.5	13.1	12.2	14.1	14.8	16.6	11.3	13.7	11.4	9.5	11.3	11.9	12.6	12.4	10.6	12.5	11.6	
External debt/exports of goods and services	234.9	205.7	214.3	218.9	276.9	247.1	216.5	223.6	184.0	177.7	166.8	152.4	132.2	126.0	121.0	138.2	127.9	
FINANCIAL RISK EXPOSURE INDICATORS (in %)																		
FX reserves/M1	290.3	356.1	306.7	300.4	393.4	416.6	429.6	402.1	330.4	278.1	250.2	207.3	176.2	168.0	174.1	130.0	138.1	131.3
FX reserves/reserve money	169.8	179.5	173.8	140.7	190.5	196.4	207.6	197.9	199.9	196.6	193.7	196.6	185.0	171.4	194.1	157.1	180.0	164.4
OPENNESS OF ECONOMY (EXPORTS + IMPORTS)/GDP	67.1	73.0	74.7	78.0	65.1	75.3	78.0	84.5	87.1	91.8	96.2	100.6	106.2	108.2	111.5	103.9	115.6	140.0
MEMORANDUM: (in EUR million)																		
GDP[1]	22,276	25,906	31,551	35,701	32,486	31,546	35,432	33,679	36,427	35,467	35,740	36,779	39,235	42,892	46,005	46,796	53,317	12,931
External debt	12,520	14,291	17,382	20,982	22,272	23,509	24,123	25,645	25,644	25,679	26,234	26,494	25,526	26,662	28,254	30,787	36,536	
External debt servicing	1,054	2,513	3,039	3,594	3,922	3,564	4,154	4,130	4,595	4,728	3,960	4,508	4,285	4,849	4,592	2,710	4,694	
Central bank foreign exchange reserves	4,922	9,020	9,634	8,162	10,602	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	11,262	13,378	13,492	16,455	14,296
Short-term debt[2]	951	968	1,044	1,832	1,852	1,758	612	455	196	99	303	672	844	1,401	1,925	1,585	1,762	
Current account balance	-1,778	-2,356	-5,474	-7,125	-2,032	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,051	-2,076	-3,161	-1,929	-2,343	-1,334
CREDIT RATING (change of rating and outlook)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
	May/July	Feb	July	March/ Dec	Dec	Nov	March	Aug	July	Jan	Dec	Jan/March/ June/Dec	March/Dec	Dec	Sept/Dec	May	March/Dec	
S&P	BB- /stable	BB- /positive	BB- /stable	BB- /negative	BB- /stable		BB /stable	BB- /negative				BB- /positive	BB /stable	BB /positive	BB+ /positive	BB+ /stable	BB+ /positive	
Fitch	BB- /stable			BB- /negative		BB- /stable		BB- /negative		B+ /stable	B+ /positive	BB-/stable	BB /stable		BB+ /stable			
Moody's									B1 /stable			B1 /positive	Ba3 /stable		Ba3 /positive		Ba2 /stable	

Methodological notes:

Foreign exchange reserves/imports of goods and services (in months) - ratio of end-of-period foreign exchange reserves to average monthly imports of goods and services during last 12 months.
Foreign exchange reserves/short-term debt (in %) - ratio of foreign exchange reserves to stock of short-term debt at remaining maturity at end-of-period.
Foreign exchange reserves/GDP (in %) - ratio of end-of-period foreign exchange reserves to GDP.
Debt repayment/GDP (in %) - ratio of debt repayment (excl. early repayment of a part of debt to London Club creditors) to GDP during period under review.
Debt repayment/exports (in %) - ratio of debt repayment (excl. early repayment of a part of debt to London Club creditors) to exports of goods and services during period under review.
External debt/GDP – ratio of end-of-period outstanding debt to GDP.
Short-term debt/GDP – ratio of end-of-period short-term debt at remaining maturity to GDP.
External debt/exports (in %) – ratio of end-of-period outstanding debt to annual value of exports of goods and services.
Foreign exchange reserves/M1 (in %) - ratio of foreign exchange reserves to money supply at end-of-period.
(Exports + imports)/GDP (in %) - ratio of value of exports and imports of goods and services to GDP during period under review.

[1] According to ESA 2010. Data for 2021 and Q1 2022 is NBS estimate.

[2] At original maturity.

Notes:

1. The Statistical Office revised GDP data for the period 2005-2017, which led to a change in the share of macroeconomic indicators in GDP.
2. Data are subject to corrections in line with the official data sources.
3. Starting from 2007 data on exports and imports of goods and services are shown in accordance with BPM6. Data for 2005 and 2006 are shown according to previous methodology.
4. Starting from 2007 the general trade system of registration of exports and imports of goods is applied. This is a broader concept and includes all goods entering/exiting country's economic territory, apart from goods in transit. Data for 2005 and 2006 are disseminated using the special trade system.
5. External debt servicing does not include advance debt repayments.

Table B
Key macroeconomic indicators

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Q1 2022
Real GDP growth (in %)[1]	5.5	5.1	6.4	5.7	-2.7	0.7	2.0	-0.7	2.9	-1.6	1.8	3.3	2.1	4.5	4.3	-0.9	7.4	4.3
Consumer prices (in %, relative to the same month a year earlier)[2]	17.7	6.6	11.0	8.6	6.6	10.3	7.0	12.2	2.2	1.7	1.5	1.6	3.0	2.0	1.9	1.3	7.9	9.1
NBS foreign exchange reserves (in EUR million)	4,922	9,020	9,634	8,162	10,602	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	11,262	13,378	13,492	16,455	14,296
Exports (in EUR million)[3]	5,329	6,948	8,110	9,583	8,043	9,515	11,145	11,469	13,937	14,451	15,728	17,385	19,312	21,166	23,349	22,271	28,557	8,160
- growth rate in % compared to a year earlier	19.1	30.4	-	18.2	-16.1	18.3	17.1	2.9	21.5	3.7	8.8	10.5	11.1	9.6	10.3	-4.6	28.2	31.2
Imports (in EUR million)[3]	9,612	11,970	15,468	18,267	13,099	14,244	16,487	16,992	17,782	18,096	18,643	19,597	22,343	25,257	27,960	26,370	33,065	9,944
- growth rate in % compared to a year earlier	0.7	24.5	-	18.1	-28.3	8.7	15.7	3.1	4.7	1.8	3.0	5.1	14.0	13.0	10.7	-5.7	25.4	47.3
Current account balance[3]																		
(in EUR million)	-1,778	-2,356	-5,474	-7,125	-2,032	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,051	-2,076	-3,161	-1,929	-2,343	-1,334
as % of GDP	-8.0	-9.1	-17.3	-20.0	-6.3	-6.5	-10.3	-10.9	-5.8	-5.6	-3.5	-2.9	-5.2	-4.8	-6.9	-4.1	-4.4	-10.3
Unemployment according to the Survey (in %)[6]						20.9	24.9	25.9	24.0	20.6	18.9	16.4	14.5	13.7	11.2	9.7	11.0	
Wages (average for the period, in EUR)[7]	210.4	257.8	347.1	402.0	337.8	331.8	372.5	366.1	388.5	379.8	367.9	374.5	394.5	419.7	465.9	510.8	560.2	601.8
RS budget deficit / surplus (in % of GDP)[4]				-1.6	-3.0	-3.2	-3.8	-5.6	-4.9	-5.9	-2.7	-0.2	0.7	0.6	0.2	-8.3	-4.6	-4.7
Consolidated fiscal result (in % of GDP)[4]	1.1	-1.4	-1.8	-2.5	-4.2	-4.3	-4.5	-6.4	-5.1	-6.2	-3.5	-1.2	1.1	0.6	-0.2	-8.0	-4.1	-4.5
RS public debt, (central government, in % of GDP)[8]	47.6	33.9	27.9	26.8	30.9	39.5	42.8	52.9	56.0	66.2	70.0	67.7	57.8	53.6	51.9	57.0	56.5	51.9
RSD/USD exchange rate (period average)	66.87	67.03	58.39	55.76	67.47	77.91	73.34	88.12	85.17	88.54	108.85	111.29	107.50	100.28	105.28	103.03	99.49	104.94
RSD/USD exchange rate (end of period)	72.22	59.98	53.73	62.90	66.73	79.28	80.87	86.18	83.13	99.46	111.25	117.14	99.12	103.39	104.92	95.66	103.93	105.50
RSD/EUR exchange rate (period average)	82.99	84.11	79.96	81.44	93.95	103.04	101.95	113.13	113.14	117.31	120.73	123.12	121.34	118.27	117.85	117.58	117.57	117.62
RSD/EUR exchange rate (end of period)	85.50	79.00	79.24	88.60	95.89	105.50	104.64	113.72	114.64	120.96	121.63	123.47	118.47	118.19	117.59	117.58	117.58	117.75
MEMORANDUM:																		
GDP (in EUR million)[5]	22,276	25,906	31,551	35,701	32,486	31,546	35,432	33,679	36,427	35,467	35,740	36,779	39,235	42,892	46,005	46,796	53,317	12,931

[1] At constant prices of previous year. Data for 2021 is SORS preliminary estimate, data for Q1 2022 is SORS flash estimate.

[2] Retail prices until 2006.

[3] Starting from 2007 data on balance of payments (current account, exports and imports of goods and services) are shown in accordance with BPM6. Data for 2005 and 2006 are shown according to the previous methodology. Due to the break in the series for 2007, exports and imports growth rates are not shown. Starting 2007 the general trade system of registration of exports and imports is applied. This is a broader concept and includes all goods entering/exiting country's economic territory, apart from goods in transit. Data for 2005 and 2006 are disseminated using the special trade system.

[4] Includes below-the-line items (payment of called guarantees, bank recapitalisations and debt takeover) in line with IMF methodology, as of 2008 on RS budget level and as of 2005 on consolidated level.

[5] According to ESA 2010. Data for 2021 and Q1 2022 is NBS estimate.

[6] Data are revised according to the new methodology of the Labour Force Survey from 2021.

[7] Until 2018, wages are shown according to the old methodology. Since 2018, wages are shown according to the new methodology and data are based on Tax Administration evidence. For conversion of wages from RSD to EUR, we used the average of the period RSD/EUR exchange rate. Data for Q1 2022 is the average of two months.

[8] Data on the share of public debt in GDP were downloaded from the website of the Ministry of Finance.

Notes:

1. The Statistical Office revised GDP data for the period 2005-2017, which led to a change in the share of macroeconomic indicators in GDP.
2. Data are subject to corrections in line with official data sources.
3. Source for the data on unemployment: Labour Force Survey, Statistical Office.
4. Source for public debt: MoF.

Index of charts and tables

Charts

II.0.1	Movement in the key policy rate and average repo rate	8
III.0.1	Contribution of CPI components to y-o-y consumer price growth	11
III.0.2	Changes in contribution of main CPI groups to y-o-y inflation	11
III.0.3	Headline and core inflation	12
III.0.4	Contribution of components to y-o-y producer price growth	18
III.0.5	Contribution of individual components to y-o-y rate of import price growth	18
III.0.6	Current inflation and one-year ahead inflation expectations	18
III.0.7	Household perceived and expected inflation	19
III.0.8	Two-year ahead inflation expectations	19
IV.1.1	Dinar liquidity	21
IV.1.2	Interest rate movements	21
IV.1.3	Interest rates in the primary market of dinar government securities	22
IV.1.4	Yield curve in the secondary government securities market	22
IV.1.5	Interest rates on new dinar loans and deposits	23
IV.1.6	Interest rates on new euro and euro-indexed loans and deposits	23
IV.1.7	Risk premium indicator for euro-denominated debt − EURO EMBIG	23
IV.1.8	Risk premium indicator for dollar-denominated debt − EMBI	24
IV.1.9	Current account deficit and net FDI inflow	24
IV.1.10	Structure of the financial account	25
IV.1.11	Dinar exchange rate and NBS transactions in the FX market	25
IV.1.12	Movements in USD/RSD and USD/EUR exchange rates	26
IV.1.13	Exchange rates of selected national currencies against the euro	26
IV.2.1	Domestic loans to the non-monetary sector and M3	26
IV.2.2	Contributions to quarterly growth in M2, by sector	27
IV.2.3	Monetary aggregate movements	27
IV.2.4	Contributions to y-o-y corporate lending growth	27
IV.2.5	Structure of new corporate loans, by enterprise size	28
IV.2.6	Contributions to y-o-y household lending growth	28
IV.2.7	Change in corporate credit standards and contributing factors	28
IV.2.8	Change in household credit standards and contributing factors	29
IV.2.9	NPL share in total loans, gross principle	29
IV.3.1	Contributions to y-o-y GDP growth rate, expenditure side	29
IV.3.2	Fixed investment	30
IV.3.3.	Export and import of goods and services	31
IV.3.4	Movement in external demand indicators for Serbian exports	31
IV.3.5	Movement of key import components	31
IV.4.1	Economic activity indicators	32
IV.4.2	Service sector indicators	32
IV.4.3	Contributions to y-o-y industry growth rate	33
IV.4.4	Construction activity indicators	33
IV.5.1	Monthly dynamics of average nominal net wage and median net wage	37
IV.5.2	Average nominal net wage	37
IV.5.3	Nominal net wage by economic sector	37
IV.5.4	Structure of y-o-y growth in total formal employment	38
IV.5.4	Contribution to y-o-y growth in total formal employment by economic sector	38
IV.5.5	Labour market indicators according to the Labour Force Survey	38

IV.6.1 Global economic activity indicators 39
IV.6.2 Contributions to s-a real GDP growth rate of the euro area 39
IV.6.3 Movements in GDP and leading indicators of the euro area 39
IV.6.4 Contributions to s-a real GDP growth rate of the USA 40
IV.6.5 Movement of selected macroeconomic indicators for the US 40
IV.6.6 Y-o-y GDP growth rates of selected CESEE countries 41
IV.6.7 Contributions of HICP components to y-o-y inflation in the euro area 42
IV.6.8 US inflation, measured by CPI 42
IV.6.9 CPI movements in selected CESEE countries in the previous year 42
IV.6.10 CPI movement in Western Balkan countries 43
IV.6.11 Policy rates across selected countries 43
IV.6.12 Inflation and target by country in March 2022 44
IV.6.13 Implied volatility of the global financial market 49
IV.6.14 Yields on ten-year bonds of euro area countries 49
IV.6.15 Yield on ten-year bonds by country 49
IV.6.16 Exchange rates of selected national currencies against the dollar 50
IV.6.17 World gold price movements 50
IV.6.18 World oil price movements 50
IV.6.19 Natural gas and thermal coal price movements 51
IV.6.20 World Primary Commodity Price Index 51
IV.6.21 World Food Price Index 51

V.0.1 Revisions of euro area GDP growth projections for 2022 and 2023 54
V.0.2 Assumption for euro area inflation 55
V.0.3 Expected 3M EURIBOR 56
V.0.4 Assumption for Brent oil prices 56
V.0.5 Benchmark natural gas price for Europe, Dutch TTF hub 57
V.0.6 Benchmark electricity price for Europe, German power baseload 57
V.0.7 Iron ore and base metal prices in the global market 57
V.0.8 Wheat and corn prices in the global market 58
V.0.9 Assumption for international prices of primary agricultural commodities 58
V.0.10 Budget balance and general government public debt 58
V.0.11 Assumption for domestic prices of primary agricultural commodities 59
V.0.12. GDP growth projection 59
V.0.13 Contributions to real GDP growth 59
V.0.14 Rate of growth in private consumption and its sources 60
V.0.15 Fixed investment 60
V.0.16 Real export and import growth 61
V.0.17 Current account and FDI projection 62
V.0.18 Contributions to real GDP growth, production side 62
V.0.19 Short-term inflation projection 62
V.0.20 Inflation projection 63
V.0.21 Contributions to y-o-y inflation by component 63
V.0.22 Output gap projection 64
V.0.23 Revisions of inflation forecasts for 2022 in the past year 64
V.0.24 Revision of inflation forecasts for 2022 64
V.0.25 Global supply-chain pressures 65
V.0.26 Container transport price 65
V.0.27 Global prices of agricultural fertilisers 65
V.0.28 Global oil price projections 66

Tables

III.0.1 Growth and contribution of components to consumer price growth in Q1 2022 12

IV.1.1 Credit rating 24

IV.3.1 Movement in key indicators and sources of household consumption 30
IV.3.2 Investment indicators 30

IV.4.1 Contributions to y-o-y GDP growth 32
IV.6.1 Inflation, policy rates and inflation targets by country 44

V.0.1 Revision of IMF forecasts of real GDP growth for 2022 and 2023 53
V.0.2 Key projection assumptions 54
V.0.3 Economic growth estimate by country 55
V.0.4 Key risks to the GDP and inflation projection 69

Table A Indicators of Serbia's external position 75
Table B Key macroeconomic indicators 76

Charts in text boxes

O.1.1 Gas prices in Europe and global oil and food prices 13
O.1.2 Monthly growth in processed food prices in Serbia in late 2021 and Q1 2022 13
O.1.3 Monthly growth in petroleum product prices in Serbia in late 2021 and Q1 2022 15
O.1.4 Dynamics of food and energy prices in some countries of the Central and Southeast European region in late 2021 and Q1 2022 16

O.2.1 Share of Russia and Ukraine in total global exports of primary commodities in 2020 35

O.3.1 Fed: FOMC members' expectations on adequate monetary policy; median value of the target range or target level of the federal funds rate 46
O.3.2 Fed's total assets 47
O.3.3 ECB's total assets 47

O.4.1 Revisions of euro area GDP growth projections for 2022 71
O.4.2 Revisions of euro area average inflation projections for 2022 71
O.4.3 Revisions of macroeconomic projections for Serbia for 2022 74

Tables in text boxes

O.1.1 Serbia's economic policy response to rising global prices of food and energy 14

O.2.1 Share of oil and petroleum product imports from Russia in total oil and petroleum product imports 34
O.2.2 Share of natural gas imports from Russia in total natural gas imports 34
O.2.3 Share of Russia and Ukraine in Serbia's foreign trade 35
O.2.4 Trade in goods between the EU and Russia 36

O.4.1 Overview of projections for Serbia: GDP, inflation and CAD 73

Executive Board meetings and changes in the key policy rate

2021

Date	Key policy rate (p.a, in %)	Change (in basis points)
14 January	1.00	0
11 February	1.00	0
11 March	1.00	0
13 April	1.00	0
13 May	1.00	0
10 June	1.00	0
8 July	1.00	0
12 August	1.00	0
9 September	1.00	0
7 October	1.00	0
9 November	1.00	0
9 December	1.00	0

2022

Date	Key policy rate (p.a, in %)	Change (in basis points)
13 January	1.00	0
10 February	1.00	0
10 March	1.00	0
7 April	1.50	+50
12 May	2.00	+50
9 June		
7 July		
11 August		
8 September		
11 October		
10 November		
8 December		

Press releases from NBS Executive Board meetings

Press release from Executive Board meeting held on 10 March 2022

At its meeting today, the NBS Executive Board voted to keep the key policy rate unchanged at 1.0% and to continue tightening monetary conditions, using the flexibility of the monetary policy framework, by raising the weighted average repo rate in reverse repo auctions, as well as the percentage of excess dinar liquidity withdrawn in those auctions. In the last repo auction held this month, the weighted average repo rate amounted to 0.90%, which is close to the key policy rate and by 79 bp higher than in early October 2021 when the process of monetary tightening began. The decision to increase the average repo rate over the past few months was motivated by the heightened cost-push pressures in the international and local environment and the need to influence inflation expectations of market agents and contain the second-round effects on the prices of other products and services.

In its monetary policy decision-making, the Executive Board had in mind that developments in the international environment call for special caution. Uncertainty that plagued the international commodity and financial markets in recent months due to the emergence of new coronavirus strains was additionally fuelled by geopolitical tensions and the crisis in Ukraine. This has pushed the prices of energy and global primary agricultural commodities and metals close to or even above their historical highs. The outlook for global economic growth is therefore increasingly uncertain, while an additional rise in the prices of energy, food and raw materials heightens the risk that inflationary pressures could turn out to be stronger than anticipated and present over a longer time period. In such circumstances, it remains uncertain at what pace the leading central banks, the Fed and the ECB, will normalise their monetary policies, nor what the effects of heightened uncertainty on financial conditions globally and on capital flows to emerging markets, Serbia included, will be.

As for developments in the domestic macroeconomic environment, the Executive Board states that the available monthly indicators suggest that economic activity in the beginning of the year is broadly in line with the NBS's expectations. Growth continues to be led by services, construction and mining, while lower activity in the overall industry still mostly reflects the weaker production in the energy sector, and partly also lower manufacturing output due to persistent disruptions to global supply chains. The NBS retains its real GDP growth projection in the range of 4–5% for this year and in the medium term, despite the fact that in the near term downside risks are more pronounced due to the Ukraine crisis, primarily on account of the possibly slower growth of our key trade partners, though the magnitude of the effects will depend the most on how long the crisis lasts. The Board judges that going forward economic growth will be led by the continued investment cycle and the implementation of large-scale infrastructure projects, as well as by a sound personal consumption growth supported by favourable trends in the labour market.

The Executive Board has concluded that y-o-y inflation, which measured 8.2% in January, also moved in line with the NBS's expectations and remained mainly guided by rising food and energy prices. At the same time, core inflation, which is influenced the most by monetary policy measures, equalled 4.1% y-o-y and was well below headline inflation, thanks to the preserved relative stability of the exchange rate even during the pandemic. Under the latest, February medium-term projection, inflation should start declining from March onwards and continue to slow towards the target midpoint until the end of the projection horizon. Though current developments concerning global prices of energy and primary commodities indicate that inflation could be somewhat higher than projected, the Executive Board still holds that it will be on a declining path until the end of the year. A key contribution to this will come from the relative stability of the exchange rate which the NBS will continue to maintain going forward and which is guaranteed by foreign exchange reserves accumulated over the past years thanks to the achieved macroeconomic stability and measured and timely interventions in the FX market. The start of the new agricultural season and the resulting lower costs in food production are expected to have a downward effect on inflation, as are the measures of the Serbian government capping the increase in fuel prices and enabling corporates to buy electricity in H1 2022 on terms much more favourable than market terms.

Monetary policy decisions in the period ahead will depend on the movement of factors in the international and domestic environment and the assessment of intensity and durability of inflationary pressures stemming from those factors, as well as their impact on financial stability and the pace of economic growth. The NBS stands ready to respond using all available monetary policy instruments in case of materialisation of any of the risks that could have consequences for medium-term price and financial stability.

The next rate-setting meeting is scheduled for 7 April 2022.

Press release from Executive Board meeting held on 7 April 2022

At its meeting today, the NBS Executive Board decided to raise the key policy rate by 50 bp, to 1.5%.

The Board made the decision as inflationary pressures in the global and domestic markets proved to be stronger and more persistent than anticipated, calling for additional monetary tightening in order to contain second-round effects on inflation expectations. For the sake of reminder, in response to challenges from the international environment, the NBS has already taken steps to gradually increase monetary policy restrictiveness, using the flexibility of the current monetary framework. The weighted average rate in the auctions of repo sale of securities was continuously and gradually increased since October 2021 – by a total of 84 bp, until it got practically the same as the key policy rate. On top of this, NBS measures have reduced banking sector liquidity in a controlled and limited manner. The effects of these measures, as well as the current increase in the key policy rate, should help inflation move at a low and stable level in the medium run.

The Executive Board also raised the interest rates on deposit and lending facilities, to 0.5% and 2.5%, respectively.

Import and producer prices have picked up considerably since mid-2021 as a result of rallying energy prices and global primary commodity prices, higher transport costs, and disrupted supply and shortages of production inputs at global level. In addition to heightened cost-push pressures from the international environment, the rise in food prices in the domestic market was driven also by the effects of last year's drought. The uncertainty that plagued international commodity and financial markets in recent months due to new coronavirus strains has been amplified by geopolitical tensions and the Ukraine crisis. This has lent further impetus to energy prices and global primary agricultural commodity and metal prices, which came close to or even shot past their all-time highs, increasing the risk that inflationary pressures might turn out stronger than anticipated and present for a longer period of time. In its decision-making, the Executive Board took into account that heightened uncertainty at global level might have a negative impact on capital flows to emerging markets, Serbia included, especially given that the Fed started the cycle of policy rate hikes in March. In addition, though it still has not announced when it would raise its policy rate, faced with stronger than expected inflationary pressures, the ECB decided in March to additionally trim the volume of quantitative easing in Q2, which calls for caution in the NBS's monetary policy-making.

In the Executive Board's judgement, the current tightening of monetary conditions will not have a significant impact on economic activity at home. Fixed investment and private consumption have continued to drive economic growth since the start of the year, supported by the favourable terms of financing ensured in the prior period and the implemented economic assistance measures, as well as by increased government capital expenditure and rising employment and wages. On the production side, growth is driven by services, construction and exploitation of metal ores, while lower activity of overall industry still largely reflects the reduced coal and electricity production. Manufacturing production went up mildly, while still facing headwinds from disrupted global supply chains and dampened external demand amid the tightening of geopolitical tensions and higher global inflation. As the outbreak of the Ukraine crisis has dimmed the growth outlook both globally and for the euro area as our most important trade partner, downside risks to Serbia's economic growth this year are now more pronounced, though the effects are estimated to depend mostly on the length of the crisis.

The Executive Board states that y-o-y inflation, which measured 8.8% in February, was largely driven by food and energy prices. At the same time, core inflation remained considerably below headline inflation, at 4.4% y-o-y in February, propped by the preserved stability of the exchange rate in extremely uncertain global conditions. According to the February medium-term projection, inflation should strike a downward path in the remainder of the year and approach the target midpoint until the end of the projection horizon. While current developments regarding the global prices of energy and primary commodities suggest that inflation might run at a higher level than projected, the Executive Board still judges that inflation will have a falling trajectory by the end of the year. The key contribution to this will come from the relative stability of the exchange rate which the NBS will continue to maintain going forward, and the taken monetary and fiscal measures. The start of the new agricultural season and the resulting lower costs in food production are expected to have a downward effect on inflation, as are the measures of the Serbian government capping the increase in fuel prices and enabling corporates to buy electricity in H1 2022 on terms much more favourable than market terms.

Monetary policy decisions in the period ahead will depend on the movement of factors in the international and domestic environment and the assessment of the intensity and persistence of resulting inflationary pressures, as well as their impact on financial stability and speed of economic growth.

The next rate-setting meeting is scheduled for 12 May 2022.

Press release from Executive Board meeting held on 12 May 2022

At today's meeting, the NBS Executive Board voted to raise the key policy rate by 50 bp, to 2%.

The Executive Board also decided to increase the deposit and lending facilities rates by 50 bp each, to 1% and 3%, respectively.

Such decisions were made as inflationary pressures in the global and domestic markets continued to be stronger and more persistent than anticipated, calling for additional monetary tightening in order to contain second-round effects on inflation expectations and a further rise in inflation.

With a view to curbing inflation in the coming period, the Board raised the key policy rate for the second consecutive time, thereby proceeding with monetary policy tightening, which began last October through gradual increasing of the weighted average rate in the auctions of repo sale of securities – by total 110 bp to date.

Also, the Executive Board stresses that interventions by selling foreign exchange in the local FX market had a twofold effect – they not only maintained relative stability of the exchange rate, but also helped tighten monetary conditions by absorbing a substantial amount of dinar liquidity. The Executive Board notes that developments in the international market in recent months have been marked by the strengthening of geopolitical tensions and the outbreak of the conflict in Ukraine, which deepened the energy crisis at global level, provided more steam to the prices of primary agricultural commodities and industrial raw materials, and put further strains on international supply chains.

As in most other countries, inflation in Serbia stayed on the upward trajectory, amounting to 9.1% y-o-y in March, still led mostly by the surging food and energy prices. Core inflation (CPI excluding the prices of food, energy, alcohol and cigarettes), which is most affected by monetary policy measures, was almost twice lower than headline inflation and amounted to 4.8% in March, on the back of relative stability of the exchange rate that has been maintained even in these extremely uncertain global conditions.

Consistent with the latest NBS projections, the Executive Board still expects that inflation will strike a downward path in the second half of the year. It will most likely return within the target tolerance band in the second half of 2023, and then continue to slow down until the end of the projection horizon. The Board judges that rising global prices of primary commodities and energy, as well as higher imported inflation will generate inflationary pressures for some time, but these pressures will gradually weaken over the projection horizon. Besides, once the new agricultural season kicks in, fruit and vegetable prices are likely to retreat from their currently high levels. The effects of past tightening of monetary conditions will also work towards calming of inflationary pressures, as will the effects of government economic measures on food and energy prices in the domestic market in the short run.

Geopolitical developments and the escalation of the Ukraine conflicts have greatly added to uncertainty regarding the global economic growth outlook, while further strengthening of inflationary pressures globally prompted many countries to revise up their inflation projections and tighten their monetary policies. In May, the Fed thus continued the cycle of raising the Fed funds rate to the range of 0.75–1.0% and decided to start reducing its balance sheet in June. Although it has still not announced when it plans to raise its main refinancing rate, in March the ECB decided to scale back the volume of its quantitative easing in Q2 amid stronger than anticipated inflationary pressures. The tightening of monetary conditions by the above leading central banks and heightened global uncertainty could negatively affect capital flows to emerging economies, including Serbia. The Executive Board also took account of the fact that, though they declined from mid-April due to a worsening of the global growth outlook, global primary commodity prices remain much higher than at the start of the year, placing pressure on further growth in producer and import prices.

Despite the negative effects produced by the Ukraine conflict on developments in the international commodity and financial markets, most economic activity indicators at home continued to post dynamic growth in Q1. According to the SORS estimate, GDP increased by 4.3% y-o-y in Q1. On the production side, growth was led by the service sectors and industry, and on the expenditure side – by private consumption and fixed investment, as well as the build-up of inventories. The contribution of net exports was negative amid elevated energy imports. Despite a high level of uncertainty, we expect our economy to expand further in the coming period, though GDP growth this year could be somewhat lower than previously expected due to a less favourable global growth outlook after the outbreak of the Ukraine conflict, including primarily the downward revisions of growth projections for the euro area and countries of the region.

Depending on geopolitical developments and the movement in key inflation factors from the domestic and international environment in the coming period, the NBS will estimate whether there is a need to tighten monetary conditions further

or whether the effects of past tightening ensure a sustainable return of inflation within the target tolerance band over the projection horizon. Delivering price and financial stability in the medium term remains the NBS's monetary policy priority, while supporting further economic growth and development, a further rise in employment and a favourable investment environment.

At today's meeting, the Executive Board adopted the May Inflation Report with new macroeconomic projections, which will be presented to the public at a press conference on 18 May.

The next rate-setting meeting is scheduled for 9 June 2022.

CIP - Каталогизација у публикацији
Народна библиотека Србије, Београд

336.71(497.11)

INFLATION Report / National Bank of Serbia. - 2006- . - Belgrade (Kralja Petra 12) : National Bank of Serbia, 2006- (Beograd : Zavod za izradu novčanica i kovanog novca "Topčider") . - 30 cm

Tromesečno
ISSN 1820-9394 = Inflation Report (National Bank of Serbia)
COBISS.SR-ID 155775244