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The Foundation for the Advancement of Economics (FREN)
Kamenička 6, Beograd
Tel/Fax: 011 3021 069
E-mail: office@fren.org.rs
http://*www.fren.org.rs*

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Slobodan Minić, Prices and the Exchange Rate
Saša Ranđelović, Fiscal Trends and Policy
Svetozar Tanasković, Monetary Trends and Policy

ASSOCIATE IN THIS ISSUE
Aleksandar Radivojević

TRANSLATION
Darko Popović
Marjeta Pevec
Vladica Đukić

PRINTING PREPARATION
Maja Tomić

COVER DESIGN
Nikola Drinčić

Quarterly Monitor of Economic Trends and Policies in Serbia (QM) was created by Kori Udovički, who was the Editor-in-Chief of the first six issues of QM. For issues seven to twenty three, the Editor-in-Chief of QM was Prof. Pavle Petrović. Diana Dragutinović was the Editor-in-Chief of QM24. Since issue QM25-26 the Editor-in-Chief of QM is Milojko Arsić.

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Analytical and Notation Conventions

Values

The data is shown in the currency we believe best reflects relevant economic processes, regardless of the currency in which it is published or is in official use in the cited transactions. For example, the balance of payments is shown in euros as most flows in Serbia's international trade are valued in euros and because this comes closest to the measurement of real flows. Banks' credit activity is also shown in euros as it is thus indexed in the majority of cases, but is shown in dinars in analyses of monetary flows as the aim is to describe the generation of dinar aggregates.

Definitions of Aggregates and Indices

When local use and international conventions differ, we attempt to use international definitions wherever applicable to facilitate comparison.

Flows – In monetary accounts, the original data is stocks. Flows are taken as balance changes between two periods.

New Economy – Enterprises formed through private initiative

Traditional Economy - Enterprises that are/were state-owned or public companies

Y-O-Y Indices – We are more inclined to use this index (growth rate) than is the case in local practice. Comparison with the same period in the previous year informs about the process absorbing the effect of all seasonal variations which occurred over the previous year, especially in the observed seasons, and raises the change measure to the annual level.

Notations

CPI – Consumer Price Index

Cumulative – Refers to incremental changes of an aggregate in several periods within one year, from the beginning of that year.

H – Primary money (high-powered money)

IPPI – Industrial Producers Price Index

M1 – Cash in circulation and dinar sight deposits

M2 in dinars – In accordance with IMF definition: cash in circulation, sight and time deposits in both dinars and foreign currency. The same as M2 in the accepted methodology in Serbia

M2 – Cash in circulation, sight and time deposits in both dinars and foreign currency (in accordance with the IMF definition; the same as M3 in accepted methodology in Serbia)

NDA – Net Domestic Assets

NFA – Net Foreign Assets

RPI – Retail Price Index

y-o-y - Index or growth relative to the same period of the previous year

Abbreviations

CEFTA – Central European Free Trade Agreement

EU – European Union

FDI – Foreign Direct Investment

FFCD – Frozen Foreign Currency Deposit

FREN – Foundation for the Advancement of Economics

GDP – Gross Domestic Product

GVA – Gross Value Added

IMF – International Monetary Fund

LRS – Loan for the Rebirth of Serbia

MAT – *Macroeconomic Analyses and Trends*, publication of the Belgrade Institute of Economics

NES - National Employment Service

NIP – National Investment Plan

NBS – National Bank of Serbia

OECD – Organization for Economic Cooperation and Development

PRO – Public Revenue Office

Q1, Q2, Q4, Q4 – 1st, 2nd, 3rd, and 4th quarters of the year

QM – *Quarterly Monitor*

SORS – Statistical Office of the Republic of Serbia

SDF – Serbian Development Fund

SEE – South East Europe

SEPC – Serbian Electric Power Company

SITC – Standard International Trade Classification

SME – Small and Medium Enterprise

VAT – Value Added Tax

From the Editor

During the previous year, there were signs of a weakening of inflation in the world, such as a fall in the prices of primary products, a halt in growth or a fall in real estate prices, a reduction in unit labor costs, etc. The reduction in inflation in a large number of countries shows that restrictive monetary and fiscal policy measures were effective, but still high inflation in most countries, as well as its fluctuations, indicate that it is necessary to continue with such a policy in the coming period.

The first important signal of the weakening of inflationary pressures was the drop in world prices of primary products, energy, metals and food during the previous year. Metal prices, which largely depend on current and planned investments, began to decline during the second quarter of the previous year, which sustained the postponement and abandonment of investments during the period of rising interest rates and increasing geopolitical risks. However, in December of last year and in January of this year, metal prices began to rise again, which is associated with the easing of epidemiological restrictions in China and the expected growth of the Chinese economy, as well as improved prospects for the world economy. Food prices had a significant drop between April and August of the previous year, after which they remained at a stable level. Energy is used in all economic activities and has a significant share in household consumption, so the movement of its prices significantly affects inflation. The drop in energy prices only started in September last year, and continued until the end of the previous year and in the first months of this year. The unstable geopolitical situation, which may develop in different directions in the coming period, may once again trigger the growth of energy and food prices, which would prolong the period of high inflation.

The second important signal of the weakening of inflationary pressures is the slowdown in the growth of real estate prices in most countries, while in some countries real estate prices have already started to decline. The slowdown in growth or the fall in real estate prices is directly related to the rise in interest rates, but it also reflects a reduction in the imbalance between supply (production) and demand (income), which triggered inflation during the previous two years. On average, real estate prices in the EU slowed down significantly, while in the US they fell in the middle of the previous year, after which they stagnated. Real estate prices in Serbia, due to high demand, continued to grow strongly throughout 2022, but at the end of last year and at the beginning of this year, the volume of sales decreased, which is a signal of slowdown of price growth.

Wages affect inflation from the cost side, but also from the demand side. Both mechanisms of influence are macroeconomically significant, as wages contribute to GDP with around 60%. Slower wage growth than GDP growth in almost all European countries during 2022 reflects the reduction of cost pressures on price growth, but also the harmonization of demand with production. Nominal wages in the EU in the first three quarters of last year increased by an average of 4.8%, while inflation in the same period in the EU amounted to 8.5%, which means that real wages decreased by 3.4%. Wages in Serbia increased by 1.7% in real terms last year, but they decreased during the year, as a result of which they were 1.5% lower in real terms in the fourth quarter than in the same period in 2021. The fall in real wages during the last year represents a kind of compensation for the faster growth of real wages than the growth of productivity during the previous few years in almost all European countries. The consequence of faster wage growth than productivity growth is an increase in unit labor costs, which in the EU just in the period 2020-2021 increased by over 8%, which means that the share of labor costs in the price of the product has increased. The growth of unit labor costs, which was a consequence of the labor shortage in Europe, directly affected the growth of business costs, but also the faster growth of demand than the growth of production.

Signs of weakening inflation in the US were registered in the middle of the previous year, when prices began to decline or stagnate compared to the previous month. The result was a drop in annual inflation in the US from 10.1% in June last year to 6% in January this year. Inflation in the EU slowed down significantly in November, when price growth compared to the previous month amounted to only 0.1%. This was followed by a drop in prices in December and an increase in January, which resulted in annual inflation falling from 11.5% in October last year to 10% in January this year. Inflation started to decline in the US few months earlier than in the EU, which can be directly linked to the earlier implementation of restrictive monetary policy in the US. The maximum value of annual inflation in China in the previous two years was reached in September of last year when it amounted to 2.8%, after which it began to decline so that in January of this year it amounted to only 1%. In the countries of Central and Eastern Europe, annual inflation reached its maximum value of 17.7% in November last year, after which it began to decline, and in February this year it was 15.9%. Based on the above we can conclude that inflation in most countries began to decline during the second half of the previous year, but that it is still high in almost all countries, except China.

The maximum inflation in Serbia last year was reached in December, when it amounted to 15.1%, which was higher than the maximum inflation in the EU (11.5% in October), but less than the maximum inflation in the countries of Central and Eastern Europe (17,7% in November). In contrast to European countries, inflation in Serbia continued to rise in the first two months of this year, so that year-on-year inflation reached 16.1% in February. The difference in the dynamics of inflation between Serbia and other European countries is largely the result of differences in energy prices during the last year and this year. During the last year, most European countries raised the prices of energy products in accordance with the movement of their prices on the world market. In contrast, Serbia minimally increased energy prices during the previous year, which directly influenced inflation to be lower compared to the one that would have been achieved if energy prices had risen similarly to other countries. In Serbia, instead of consumers, part of the energy costs was paid by the state, which directly affected the growth of fiscal deficit and public debt, which means that part of the energy costs were passed on from consumers to taxpayers. It is obvious that this kind of policy, which results in the growth of public debt, is not sustainable in the long term, so raising energy prices is one of the key elements of Serbia's agreement with the IMF. The increase in energy prices already started during the second half of the previous year, and will continue during this and the following year, which will result in longer period of high inflation in Serbia compared to other European countries.

Although inflation in the world is decreasing, there is still great uncertainty regarding its trend in the coming period. Part of the uncertainty stems from geopolitical factors such as the war in Ukraine and the deterioration of relations between the West and China, which in the short term can lead to a re-increase in the prices of primary products, such as food and energy, which would lead to an increase in inflation at the world level. The long-term consequence of worsening geopolitical relations could be the fragmentation of the world market, i.e., a reduction in the mobility of capital, products and labor, which would result in an increase in business costs and thus an increase in inflation.

Another potential reason for a slower decline in inflation could be the spread of the crisis in the banking sector and the approval of a large amount of loans for liquidity to banks in trouble in the USA and Switzerland (for now), which partially neutralizes the effects of restrictive monetary policy. The approval of loans for liquidity could slow down or even temporarily increase inflation, only if it is a long-term large-scale intervention. For now, it is more likely that the scope of the intervention will not be macroeconomically significant, as well as that it will be short-lived, which means that it should not significantly affect inflation trends.

Having in mind the dynamics of inflation during the previous few months, it is estimated that it is justified for central banks, including the NBS, to continue with the application of restrictive monetary policy, i.e. with an increase in interest rates in the coming period. Such a policy will have a stronger impact on reducing inflation if it is supported by a restrictive fiscal policy, that is, a low fiscal deficit policy. Applying a restrictive monetary and fiscal policy increases the chances of a relatively quick reduction in inflation. A rapid reduction in inflation is of crucial importance in order to prevent the start of a spiral between inflation and wages. Last year, real wages fell in most countries which contributed to reducing inflation, but such a policy will not be feasible in the long term. If inflation lasts longer, the resistance against the reduction of real wages will be stronger, which means that employees will demand that their wages follow inflation and probably that they grow in real terms, which could lead to the start of a spiral between wages and inflation.

Another argument in favor of the rapid reduction of inflation is the possibility to start reducing interest rates earlier, which would encourage investments and economic growth. A less restrictive monetary and fiscal policy would result in a prolonged period of high inflation and high interest rates. From the point of view of long-term economic growth, short-term application of a strong restrictive policy is more desirable than long-term application of a moderately restrictive policy.

The third argument in favor of the strategy of rapid reduction of inflation is the prevention of incorporating high inflation into inflationary expectations. The longer inflation lasts, the more and more businesses will factor high inflation into their plans. When expectations of high inflation are prevalent, then in order to reduce inflation, it is necessary to apply a more restrictive monetary and fiscal policy, which implies greater losses in terms of economic growth and employment.

It is estimated that the USA and the EU have decided to quickly reduce inflation, which is manifested through the growth of interest rates of central banks, but also the reduction of fiscal deficits. The effects of such a policy will be somewhat weaker if the central banks approve a larger amount of loans for liquidity in order to prevent a banking crisis, or if there is a renewed increase in the prices of primary products. However, a restrictive monetary and fiscal policy would be effective in reducing inflation even in such circumstances, but the costs of such a policy in terms of economic activity and jobs would be higher. Similar to other countries, the reduction of inflation in Serbia requires the continuation of a restrictive monetary policy, but it would be desirable to achieve a low fiscal deficit, which means that additional extraordinary programs to help citizens and the economy or extraordinary increases in wages, pensions and other income paid by the state should not be implemented in this year.

TRENDS

1. Review

Serbia enters 2023 with mixed macroeconomic trends, within which there are somewhat more unfavorable than favorable indicators. The biggest macroeconomic challenge is high and still growing inflation. At the end of 2022 price growth was 15.1%, and by the end of February 2023 it was further increased to 16.1%. Economic activity is currently in stagnation, since the year-on-year growth of GDP in Q4 2022 was only 0.4% and there are uncertainties in which direction economic trends will continue in 2023. Balance of payments trends have noticeably worsened throughout 2022 (the current account deficit increased from 4.2% of GDP in 2021 to 6.9% of GDP), but there was still a significant improvement in the second half of the year. The main trends in the labor market at the end of 2022 were stagnation of employment and unemployment, with a slight real drop in average wage (due to the acceleration of inflation). Fiscal developments can in principle be assessed as stable despite the fact that in 2022 a relatively high budget deficit of 3.1% of GDP was realized. However, within this deficit, a very high level of public investments of 7.2% of GDP was realized, and there were also some extraordinary budget expenditures (energy, one-time allocations for young people) that should be significantly reduced or abolished during 2023. When this is taken into account, the basic fiscal trends can still be assessed as stable. An additional guarantee that Serbia's public finances will be under control in 2023 is provided by the standby arrangement with the IMF, which was signed at the end of 2022.

Although two and a half months of 2023 have already passed, macroeconomic forecasts for this year are still uncertain, especially considering the extremely unstable and unpredictable international circumstances. The current expectations of QM remain moderately optimistic, which basically means that we forecast that during 2023 there will be a significant slowdown in inflation and a certain revival of economic growth in Serbia. However, it is very possible that the results of these two important macroeconomic indicators in 2023 will still be slightly worse than the currently valid forecasts of the Government and the National Bank of Serbia. As far as inflation is concerned, in January and February 2023 it was already above the forecasts of the NBS (from the latest Inflation Report). Because of this, it is possible that its average level in 2023 could be slightly over 12% instead of the expected 11% (which was also used for the preparation of the Budget). When it comes to economic growth, there are currently not many indicators from 2023 on the basis of which a somewhat more reliable forecast for the current year could be given. However, the relatively weak results from the second half of 2022 indicate that economic growth in 2023 could easily be slightly lower than the officially forecasted 2.5% (perhaps it could be around 2%). So, taking all of the above into account, it still seems that the main macroeconomic indicators during 2023 will go in the direction of the expected improvements - but there are also certain warning signs that require increased caution and additional preparedness of the economic policy to react in time if the need arises.

In addition to geopolitical risks, which are unpredictable, and which significantly affect the economy, a crisis in banks in the USA and Switzerland appeared during March. The strong reactions of central banks and governments in the USA and Switzerland have, for now, prevented the spread of panic but the emergence of a more serious crisis in the banking sector is still not excluded. A possible more serious banking crisis would almost certainly further reduce the GDP, which would encourage central banks to ease monetary policy, through the abundant issuance of loans for liquidity, and in such circumstances a halt and perhaps a reduction of interest rates is likely.

Economic activity in Q4 continued to slow down (see section 2. "Economic Activity"). Year-on-year GDP growth was only 0.4%, which is the lowest quarterly rate of economic growth in Serbia since 2020. The slowdown of economic activity is influenced by the acceleration of inflation, which reduces the real income of the population and consequently private consumption, but also the continuation of the slowdown of economic activity in the EU, with which the domestic economy is closely connected. Also, investments and industrial production at the end of 2022 recorded declining or barely positive trends. On an annual level Serbia achieved a relatively modest economic growth of 2.3% in 2023, which was 2 p.p. lower than the average economic growth of comparable CEE countries. We wrote about the reasons why Serbia had worse results than comparable countries in 2022 in previous editions of QM. We see them primarily in the bad agricultural season due to the drought and in the somewhat different dynamics of the economic recovery from the health crisis in Serbia compared to other CEE countries. Namely, in the CEE countries the effect of recovery from the health crisis was still delayed during 2022 (e.g. the strong growth of tourism in Croatia), and Serbia exhausted the effect of recovery from the crisis somewhat earlier, with faster economic growth during 2021. As we mentioned, we are currently forecasting that Serbia's GDP growth in 2023 could be around 2% (partly due to the expected recovery of agriculture from the drought). This forecast, however, should be interpreted as conditional and indicative. Ever since the outbreak of the health crisis in March 2020, it has become common for economic growth forecasts for the current year to change significantly during the year - which we do not exclude will happen again in 2023.

Inflation in Serbia has been accelerating month by month since August 2021, and according to the latest available data, the year-on-year price increase in February 2023 was a high 16.1% (see section 5. "Prices and the Exchange rate"). This is a record level of inflation since it is measured in Serbia by the Consumer Price Index (since the beginning of 2007) and as much as 11.6 p.p. above the upper limit of the NBS target corridor (3 ± 1.5%). QM's assessment is that inflation in Serbia is currently most likely at its peak (or very close to it), which means that we expect its gradual slowdown in the coming period. This is indicated by the weakening of international inflationary pressures - since global inflation has been gradually slowing down for several months. Inflation in the USA peaked in June 2022 at 9.1% and by February 2023 it was reduced to 6%. In the Eurozone, the maximum inflation of 10.6% was reached in October 2022, and by February 2023 price growth was reduced to 8.5%, and in the CEE countries the peak of inflation of around 18% was reached in September 2022 and now it is reduced to about 16%. In addition to international factors, domestic factors should also affect the expected slowdown of year-on-year inflation in Serbia in the coming months - stagnation of economic growth with a slowdown in real growth of private consumption, the effect of a higher base from the previous year and an increase in the restrictiveness of monetary policy.

However, we draw attention to one specific feature of inflation in Serbia due to which its slowdown during 2023 will, by all accounts, be noticeably slower than in other CEE countries. Namely, Serbia was significantly late with the increase in controlled energy prices (electricity and gas). Unlike other CEE countries, which increased these prices strongly (sometimes multiple times) during 2022, the policy of the Government of Serbia was to first freeze the prices of these energy sources at the pre-crisis level, and then to allow their modest increase until the end of 2022. This kind of policy, however, cannot continue indefinitely, among other things, because the losses of public companies from the energy sector (Srbijagas and EPS) have so far cost the budget as much as 2.4 billion euros. For this reason, in January 2023, Serbia implemented relatively strong corrections in the prices of electricity and gas, and similar increases are foreseen in May of the current year (after that May increase two additional increases in the price of gas alone are planned at the end of 2023 and in the first half of 2024.). This (delayed) increase in energy prices in January 2023 was the main reason why inflation in Serbia continued to rise in the first two months of 2023, while it declined in most other European countries. Because of all this, we assess that the Government's policy of maintaining non-market gas and electricity prices for too long was economically wrong. It not only led to a huge budget cost, but because of late corrections of energy prices high inflation in Serbia will most likely last a bit longer compared to comparable countries.

In 2022, the current account deficit of the balance of payments was relatively high (6.9% of GDP), which is the result of high deficit values in the first half of the year (10.5% of GDP) and significantly lower values in the second half of the year (3,8% of GDP). An important factor that influenced such unusual foreign economic trends was the import of energy products. Namely, in the first half of 2022, and especially in Q1, Serbia had an unusually large deficit in the trade exchange of energy products. The reason for this was a strong increase in world prices (Serbia is a net energy importer), but also an extraordinary increase in the amount of imported electricity due to the collapse of production in EPS. In the second half of the year, however, there was a reversal of this trend since world energy prices began to fall EPS recovered a part of the lost production and Serbia benefited from a slightly milder autumn and winter, so energy consumption at the end was extraordinarily reduced. A positive and rather unexpected balance of payments trend in 2022 was the strong growth of foreign direct investments (FDI). Net FDI inflows to Serbia in 2022 amounted to 4.3 billion euros, i.e. 7.1% of GDP. Of this, as much as 2.8 billion FDI came in the second half of the year, which is an unexpected result taking into account the great international instability (war in Ukraine), the global increase in interest rates, but also the fact that in the second half of 2022 total investments in Serbia were on a downward trend.

The strong increase in inflation and the slowdown in economic activity during 2022 also affected the labor market (see section 3. "Labor Market"). Although the year-on-year nominal growth of average wage throughout 2022 was relatively high and amounted to almost 14%, the acceleration of inflation led to the fact that at the end of the year the year-on-year real growth of wages was slightly negative. More specifically, in Q4 the year-on-year drop in wages amounted to 1.5%. The slowdown in economic activity gradually began to be reflected in the trend of employment, so that according to the LFS in Q4 there was a slight year-on-year decrease in the number of employees of 1% (although according to administrative data registered employment maintained a growth of 2.4% in Q4). Despite a certain worsening of trends at the end of the year, trends on the labor market in 2022 can still be assessed as moderately favorable in principle. The total number of employees in Serbia according to the LFS (both in the formal and informal sector) was over 2.9 million in 2023, which is the largest number of employees in Serbia since this survey was introduced, and the unemployment rate was also at a record low level for Serbia - 9.4%.

High and growing inflation led to an increase in the restrictiveness of monetary policy during 2022 and in the first three months of 2023 (see section 7. "Monetary Flows and Policy"). The NBS started gradually increasing the reference interest rate in April 2022 (from its historically lowest level of 1%). Thus, after 12 consecutive increases the reference interest rate reached the level of 5.75% in mid-March 2023. Current inflation trends suggest that the cycle of monetary adjustment will most likely end after one or two more hikes in this interest rate. Market interest rates offered by banks on both indexed and dinar loans are also on the rise. Average weighted interest rates on indexed loans increased from the beginning to the end of 2022 by 2.55 p.p., which means that they almost doubled compared to their level at the end of 2021. The growth of the credit activity of the economy during 2022 slowed down, so that in Q4 companies already had a net deleveraging towards domestic banks (for about 270 million euros). An important positive result of the domestic financial sector is that the share of bad loans in the total did not increase despite the relatively strong growth in interest rates. At the end of February 2023 the share of bad loans in total loans amounted to only about 4%.

Fiscal trends in 2022 were quite specific (see section 6. "Fiscal Flows and Policy"). On an annual level, a relatively high budget deficit of 3.1% of GDP was realized, which was noticeably higher than the fiscal deficit of comparable CEE countries, as well as the entire EU. However, within the realized deficit in Serbia of 3.1% of GDP, as much as 2.7% of GDP was actually budget costs to cover the losses of Srbijagas and EPS - which means that the budget of Serbia in 2022 would already be approximately in balance without these costs. At the same time, it should also be borne in mind that in 2022 Serbia realized an unusually high level of public investments of as much as 7.2% of GDP, and had some extraordinary expenditures (such as unselective aid for young people) which should not be repeated. So, taking all of the above into account, it can be assessed that the basic fiscal flows in Serbia are actually quite stable, that is, that the structural (systemic) deficit is low.

What is particularly interesting is the perspective of Serbia's fiscal policy in 2023 and the following years. It is obvious that the costs for support for public companies (Srbijagas and EPS) will decrease significantly in 2023, partly due to the increase in electricity and gas prices on the domestic market, and partly due to the drop in energy prices on the international market. Since these costs were the main source of fiscal imbalances in 2022 Serbia has an excellent opportunity to significantly reduce the fiscal deficit in 2023, i.e. instead of the initially planned budget deficit in 2023 of 3.3% of GDP, bring the deficit below 2% of GDP. This is not only relatively easy to do now but it is also economically desirable for several reasons. First of all, a lower budget deficit would lead to a faster decrease in the share of public debt in GDP, which may prove to be very important in the near future. Namely, although the share of public debt in Serbia has not gotten out of control (currently public debt is at the level of about 55% of GDP), the costs of servicing this debt could very quickly become a significant burden on public finances because global interest rates are on a strong rise. Another reason why in 2023 there should be a greater reduction of the fiscal deficit than originally planned is that such a fiscal policy would significantly contribute to slowing down high inflation, which is currently Serbia's biggest macroeconomic problem. The third reason for a more restrictive fiscal policy is the fact that there are numerous instabilities and uncertainties (primarily in the international environment) which in the worst possible outcome could require some new and unplanned state interventions. Because of all this, QM's firm recommendation is for the state to take advantage of the opportunity that has now been presented to it and to lead its public finances during 2023 in the direction of faster balancing than is foreseen by the Fiscal Strategy and the arrangement with the IMF.

Serbia: Selected Macroeconomic Indicators, 2015–2022

	2015	2016	2017	2018	2019	2020	2021	2020				2021				2022			
								Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Economic Growth																			
GDP (in billions of dinars)	4,312.0	45,281.2	4,760.7	5,072.9	5,421.9	5,502.2	6,270.1	1,312.5	1,280.7	1,411.5	1,497.5	1,366.9	1,531.4	1,626.3	1,745.5	1,534.6	1,738.5	1,839.8	1,967.0
GDP	1.8	3.3	2.1	4.5	4.2	-0.9	7.5	5.2	-6.3	-1.3	-1.0	1.7	13.8	7.8	7.2	4.2	3.8	1.0	0.4
Non-agricultural GVA	2.3	2.5	3.3	3.4	4.9	-1.0	8.5	5.7	-6.7	-1.7	-1.0	2.7	14.6	8.9	8.2	4.1	4.3	1.4	0.9
Industrial production	7.3	4.9	4.2	1.4	0.3	0.5	6.4	4.2	-7.7	3.4	1.7	3.8	15.9	1.1	3.8	1.9	4.8	-0.5	0.7
Manufacturing	5.7	5.6	6.6	2.0	0.2	0.1	5.6	6.0	-8.0	2.6	0.3	2.5	19.8	0.3	3.0	4.1	4.8	-0.9	-2.3
Average net wage (per month, in dinars)[2)]	44,437	46,087	47,888	49,643	54,908	60,057	65,864	59,251	59,188	59,413	62,374	63,559	65,014	64,863	69,938	72,067	73,828	74,459	79,302
Registered Employment (in millions)	1,990	1989	2,177	2,131	2,173	2,216	2,274	2187	2197	2225	2253	2248	2270	2287	2288	2284	2305	2308.955	2342
Fiscal data																			
Public Revenues	3.1	7.5	4.0	4.6	6.2	-2.6	15.5	-0.2	-14.9	1.4	1.9	9.2	40.8	11.5	5.7	5.0	4.9	1.0	-3.8
Public Expenditures	-3.2	1.9	-1.7	5.8	8.4	16.0	5.8	11.7	33.2	13.4	6.9	1.7	-5.3	7.1	18.2	13.1	-5.5	-11.2	1.1
Overall fiscal balance (GFS definition)[3)]	-149.1	-57.1	52.3	32.2	-11.1	-442.8	-259.4	-52.2	-258.0	-50.7	-82.0	-12.7	-26.1	-29.3	-191.4	-68.1	52.5	63.8	265.2
Balance of Payments																			
Imports of goods[4)]	-15,099	-15,933	-18,064	-20,191	-22,038	-21,280	-26,699	-5,532	-4,391	-5,383	-5,974	-5,582	-6,635	-6,821	-7,660	-8,298	-9,241	-8,246	-9,278
Exports of goods[4)]	11,454	12,814	14,066	15,106	16,415	16,079	20,772	3,957	3,386	4,161	4,576	4,620	5,013	5,360	5,779	6,055	6,720	6,629	7,126
Current account5[)]	-1,234	-1,075	-2,051	-2,076	-3,161	-1,929	-2,359	-947	-300	-468	-215	25	-706	-673	-1,005	-1,351	-1,266	-207	-837
in % GDP[5)]	-3.4	-2.9	*-5.2*	*-4.8*	*-6.9*	*-4.1*	*-4.4*	*-8.5*	*-2.8*	*-3.9*	*-1.7*	*0.2*	*-5.4*	*-4.9*	*-6.8*	*-10.4*	*-8.6*	*-1.3*	-5.0
Capital account[5)]	920	535	1,648	1,743	3,104	2,079	2,158	993	638	487	-38	5	486	567	1,100	1,520	1,225	-202	606
Foreign direct investments	1,804	1,899	2,418	3,157	3,551	2,938	3,699	785	635	298	1,221	941	815	1,080	863	561	951	1,290	1525
NBS gross reserves (increase +)	166	-302	228	1,123	1,873	270	2,619	-443	806	-797	705	724	-142	2,604	-566	-2,256	316	1,659	3200
Monetary data																			
NBS net own reserves[6)]	931,320	923,966	891,349	963,944	1,218,085	1,127,942	1,331,164	1,194,599	1,180,603	1,085,928	1,127,942	1,117,820	1,122,632	1,282,740	1,331,164	1,173,699	1,222,943	1,395,432	1,519,385
NBS net own reserves[6)], in mn of euros	7,649	7,486	7,482	8,166	10,363	9,593	11,321	10,161	10,040	9,235	9,593	9,507	9,549	10,911	11,321	9,974	10,414	11,894	12,952
Credit to the non-government sector	1,982,974	2,031,825	2,067,826	2,282,988	2,467,546	2,760,481	3,027,481	2,536,569	2,636,541	2,753,218	2,760,481	2,786,153	2,848,534	2,928,909	3,027,481	3,108,894	3,210,333	3,257,091	3,242,781
FX deposits of households	1,014,260	1,070,944	1,074,424	1,167,846	1,231,028	1,301,580	1,448,165	1,230,553	1,251,162	1,270,785	1,301,580	1,341,246	1,379,848	1,403,488	1,448,165	1,458,479	1,490,922	1,498,556	1,505,254
M2 (y-o-y, real growth, in %)	5.5	8.0	0.6	11.8	6.5	16.6	5.1	8.7	17.1	16.6	16.6	16.7	8.9	6.7	5.1	-0.7	-5.1	-6.1	-7.1
Credit to the non-government sector (y-o-y, real growth, in %)	1.4	0.9	4.0	8.0	7.7	9.7	7.0	9.4	11.1	12.2	9.7	7.9	6.2	4.6	7.0	2.3	0.9	-2.2	-6.9
Credit to the non-government sector, in % GDP	48.4	47.2	45.4	44.4	44.9	48.8	49.9	46.1	47.6	48.9	48.8	48.8	48.8	49.3	49.9	47.4	50.2	46.6	45.7
Prices and the Exchange Rate																			
Consumer Prices Index[7)]	1.6	1.5	3.0	2.0	1.8	1.5	4.7	1.4	1.6	1.9	1.3	1.8	3.3	5.7	7.9	9.1	11.9	14.0	15.1
Real exchange rate dinar/euro (average 2005=100)[8)]	90.6	91.6	88.9	86.6	85.7	84.4	83.2	84.3	84.8	84.2	84.3	84.0	83.6	82.9	82.2	82.1	81.7	79.8	78.4
Nominal exchange rate dinar/euro[8)]	120.8	123.3	121.4	118.3	117.9	117.6	117.6	117.6	117.6	117.6	117.6	117.6	117.6	117.6	117.6	117.6	117.6	117.4	117.3

Source: FREN.

1) Unless indicated otherwise.

2) Data for 2008 represent adjusted figures based on a wider sample for calculating the average wage. Thus, the nominal wages for 2008 are comparable with nominal wages for 2009 and 2010, but are not comparable with previous years.

3) We monitor the overall fiscal result (overall fiscal balance according to GFS 2001) – Consolidated surplus/deficit adjusted for "budgetary lending" (lending minus repayment according to the old GFS).

4) The Statistical Office of the Republic of Serbia has changed its methodology for calculating foreign trade. As from 01/01/2010, in line with recommendations from the UN Statistics Department, Serbia started applying the general system of trade, which is a broader concept that the previous one, in order to better adjust to criteria given in the Balance of Payments and the System of National Accounts. A more detailed explanation is given in QM no. 20, Section 4, "Balance of Payments and Foreign Trade".

5) The National Bank of Serbia changed its methodology for compiling the balance of payments in Q1 2008. This change in methodology has led to a lower current account deficit, and to a smaller capital account balance. A more detailed explanation is given in QM no. 12, Section 6, "Balance of Payments and Foreign Trade".

6) The NBS net own reserves represent the difference between the NBS net foreign currency reserves and the sum of foreign currency deposits of commercial banks and of the foreign currency deposits of the government. More detailed explanations are given in the Section Monetary Flows and Policy.

7) Data for 2004, 2005 and 2006 are based on the Retail Prices Index. SORS has transferred to the calculation of the Consumer Price Index from 2007.

8) The calculation is based on 12-m averages for annual data, and the quarterly averages for quarterly data.

2. Economic Activity

Serbia's economic activity continued to slow down in Q4. Year-on-year GDP growth was only 0.4% and was the lowest since the beginning of 2021. This result was expected and we announced it in previous editions of QM. Namely, 1) high and growing inflation reduces the real income of the population and consequently private consumption; 2) investments and industrial production record declining or unconvincing, barely positive trends during 2022; 3) the slowdown of economic activity in the EU, with which the domestic economy is closely connected, is still noticeable. At first glance, the seasonally adjusted GDP in Q4 shows slightly more favorable short-term trends than the year-on-year indices. The growth of seasonally adjusted GDP in Q4 compared to Q3 was 0.7% (annualized almost 3%). However, we interpret this result as an oscillation on an approximately stagnant trend of economic activity, and not as an announcement of the start of a stronger economic recovery - especially since in the previous quarter (Q3) the seasonally adjusted GDP had a drop of 0.7% (which is identical to the growth achieved now). At the level of the entire 2022 the GDP growth of Serbia was 2.3%, which can be assessed as a modest result. Other CEE countries had an average economic growth rate of 4.3% in 2022, which was 2 p.p. above Serbia, and noticeably faster economic growth than Serbia was also achieved at the level of the entire EU (3.5%). One reason for Serbia's low economic growth in 2022 was a bad agricultural season due to a drought, which reduced overall GDP growth by about 0.5 p.p. The second reason is the fact that in comparable CEE countries, the delayed effect of recovery from the health crisis continued during 2022 (for example, the strong growth of tourism in Croatia). Serbia, unlike most other CEE countries, exhausted the effect of recovery from the crisis somewhat earlier, with faster economic growth during 2021. Looking ahead, forecasts for Serbia's GDP growth in 2023 are still very uncertain and we expect them to change during the year. At the same time, the first indicators of economic trends in January were mixed, so they do not provide much new information on the basis of which more reliable forecasts can be made for the next period. For this reason, we are keeping the forecast from previous editions of QM that Serbia's GDP growth in 2023 could be around 2%. Within this growth, the largest part of the economy would have a growth of about 1.5%, with an additional contribution of agriculture of about 0.5 p.p. (recovery from the drought is expected in 2023).

Year-on-year GDP growth in Q4 was 0.4%, and at the level of the entire 2022, 2.3%

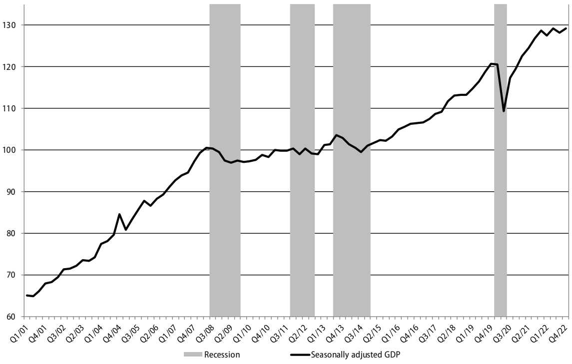
According to the latest SORS estimates the year-on-year growth of Serbia's GDP in Q4 was 0.4%, which represents the continuation of the decrease in year-on-year GDP growth rates that lasted throughout 2022. More specifically, at the beginning of 2022, i.e., in Q1, Serbia's economic growth was 4.1%, and then it gradually decreased from quarter to quarter - to 3.8% in Q2, then to 1% in Q3 and to 0,4% in Q4. At the level of the entire year Serbia thus achieved a GDP growth of 2.3%, which is half lower than the forecasts with which we entered the year (4.5%). The main reasons for Serbia's significantly worse economic results than expected are events that could not be predicted at the time when the GDP forecasts for 2022 were made (autumn 2021). These are: the outbreak of war in Ukraine (along with European sanctions against Russia), further acceleration of inflation, the energy crisis (which in Serbia was further exacerbated by the catastrophic mismanagement of public enterprises), as well as the slowdown of the economies of EU countries and regions with which the Serbian economy is closely linked.

In Q4, seasonally adjusted GDP grew by 0.7% compared to the previous quarter.

Unstable, but in principle stagnant trends of economic activity in Serbia throughout 2022 can be clearly seen on the seasonally adjusted GDP index shown in Graph T2-1. Although a solid seasonally adjusted GDP growth of 0.7% (2.8% annualized) was actually achieved in Q4, Graph T2-1 quite clearly indicates that from the beginning of 2022 the basic trend of economic activity in Serbia is stagnation, and that the achieved result from Q4 seems to be another oscillation on the approximately stagnant trend of economic activity[1]. Quarterly fluctuations in seasonally adjusted GDP that occurred throughout 2022 were unusually large. At the beginning of the year,

1 We gave a similar assessment in the previous edition of QM, when we also interpreted the drop in seasonally adjusted GDP from Q3 of 0.7% as instability in the basic trend of economic activity, and not as an announcement of the beginning of a recession.

Graph T2-1. Serbia: Seasonally adjusted GDP growth, 2001-2022 (2008 = 100)



Source: *QM* estimates based on SORS data
Note: shaded periods represent a recession, estimated based on the Bry-Boschan procedure

seasonally adjusted GDP recorded a decrease of 0.9% compared to Q4 2021 (annualized decrease of 3.6%), and then in Q2 there was a quarterly growth of 1.3% (annualized growth of 5, 3%). The same thing happened again in Q3 and Q4 when the seasonally adjusted GDP first fell by 0.7% and then increased by the same percentage. Such frequent and large fluctuations of seasonally adjusted GDP at the quarterly level as in 2022 have not occurred in Serbia since 2012 (Graph T2-1), which well illustrates how turbulent and unpredictable economic trends are at the moment.

The main reason for the slowdown in year-on-year GDP growth in Q4 is the further slowdown in the growth of trade, transport and tourism

In Table T2-2, we presented data on the year-on-year growth of Serbia's GDP by production principle, i.e. by individual sectors of the economy. The main and expected change that happened in Q4 is the continuation of the slowdown in the growth of trade, transport and tourism. This heterogeneous grouping of services (which are presented together in the quarterly national accounts) had year-on-year growth of only 2.8% in Q4. This is a serious slowdown compared to the previous quarter, when this group of services had a growth of 5.5%, but also compared to the first half of the year when the year-on-year growth of this part of the economy was around 10%. The movement of this group of services had the greatest impact on the slowdown of the year-on-year growth of total GDP during 2022. Namely, these services, which participate in the total GDP of Serbia with 20%, reduced their growth from 11.4% in Q1 to 2.8% in Q4, which significantly reduced the year-on-year growth rate of the total GDP. The systematic slowdown in the growth of trade, transport and tourism during 2022 was due to the acceleration of inflation as well as the gradual depletion of space for the continuation of the accelerated post-crisis recovery of tourism and transport (which had the deepest decline during the health crisis).

Table T2-2. Serbia: Gross Domestic Product by Activity, 2017–2022[1]

	Y-o-y indices														
	2017	2018	2019	2020	2021	2022	2021				2022				Share
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021
Total	102.1	104.5	104.2	99.1	107.5	102.3	101.7	113.8	107.8	107.2	104.1	103.8	101.0	100.4	100.0
Taxes minus subsidies	102.2	105.5	103.5	97.7	108.3	104.1	99.3	116.7	109.1	108.1	108.2	105.1	102.5	101.1	17.3
Value Added at basic prices	102.1	104.3	104.4	99.4	107.4	101.9	102.2	113.2	107.5	107.1	103.3	103.5	100.7	100.3	82.7
Non agricultural Value Added	103.3	103.4	104.9	99.2	108.5	102.6	102.7	114.6	108.9	108.2	104.0	104.3	101.5	100.9	92.4[2)]
Agriculture	88.6	115.1	98.4	102.3	94.3	91.7	94.1	94.6	94.4	94.2	91.6	91.4	91.5	92.2	7.6[2)]
Industry	102.6	100.9	100.4	100.5	106.3	101.8	104.4	115.7	102.3	104.0	102.0	104.6	99.6	101.2	21.6[2)]
Construction	105.4	112.4	133.7	96.7	117.6	90.2	119.8	118.3	119.4	114.4	94.3	93.1	87.9	87.5	7.3[2)]
Trade, transport and tourism	105.2	106.3	106.0	94.7	114.3	106.7	102.4	128.9	114.9	112.7	111.4	108.1	105.5	102.8	20.0[2)]
Informations and communications	103.7	105.4	108.3	108.7	104.9	106.6	104.9	106.4	103.7	104.8	105.3	105.2	108.1	107.7	6.2[2)]
Financial sector and insurance	101.0	107.5	102.3	104.6	109.4	102.3	110.0	110.1	109.1	108.3	102.1	102.3	102.8	101.8	3.9[2)]
Other	102.5	101.5	102.6	98.8	105.5	103.2	97.8	108.0	108.8	107.7	103.9	104.9	102.0	101.9	33.5[2)]

Source: SORS
1) In prices from the previous year
2) Share in GVA

Agriculture and construction had a relatively deep decline throughout the entire 2022

Other sectors of the economy in Q4 mostly repeated similar results as in previous quarters (Table T2-2). Due to the drought, agriculture recorded a drop in the whole of 2022 of about 8%, which is an important figure since it noticeably reduced the growth of the total GDP of Serbia in 2022 (by about 0.5 p.p.), and is a consequence of extraordinary circumstances that will probably not repeat in 2023. In Q4, construction slightly deepened its decline from previous quarters to 12.5% (in the first three quarters of 2022 the decline in construction was 8.5% on average). While for agriculture it is quite clear that its decline is a consequence of temporary circumstances (drought), unfavorable trends in construction could be of a more permanent nature and are probably related to lower investment activity and an increase in interest rates on loans. In the coming period, we will carefully monitor the impact the increase in interest rates will have on the Financial Sector.

During 2022, this sector had a relatively mild growth of 2.3%, which was somewhat lower than in previous years, and it is possible that it will continue with a further slowdown in the coming quarters. In Q4, industrial production had a low year-on-year growth of 1.2%, which is approximately at the level of the annual growth of this activity in 2022 (1.8%). There will be more about the industry in a separate section of the text.

The IT sector is becoming more and more important for the economy of Serbia

The sector of the economy that has had high and stable growth rates in 2022, as well as in a longer series of previous years, is Information and Communications (which relate mainly to telecommunications and the IT industry). In 2022, this sector had a growth of 6.6%, and in the previous 10 years the cumulative growth of this sector was about 65%. It is possible that an additional impetus to the growth of this sector of the economy will be given by the increased influx of immigrants from Russia who moved their businesses to Serbia. Another important indicator, which we noticed in the previous editions of the QM, is that the Information and Communications sector after 2022 already participates in the GDP of Serbia with about 6.5%. This is significantly more than traditional economic sectors such as Transport and storage or Financial services, and it is already close to the participation of the Agriculture and Construction sectors in the Serbian economy.

In Q4, the gradual slowdown of private consumption continues, but with a certain recovery of net exports

The structure of GDP growth by consumption is shown in Table T2-3. In principle, these data in Q4 were complementary to the analysis of GDP movements by production sectors of the economy. Private consumption, which makes up the largest part of expenditure GDP, had a real year-on-year growth of 1.5% in Q4, which represents its further gradual slowdown compared to previous quarters. At the beginning of the year, i.e. in Q1, private consumption had a year-on-year growth of 6.9%, so its decrease by about 4.5 p.p. from the beginning to the end of the year was the main reason for the slowdown in the overall growth of Serbia's GDP. We see the reason for this trend of slowing growth of private consumption primarily in the increase in inflation, which reduced the real income of the population. State consumption, with certain oscillations, mostly stagnated during 2022, which is a consequence of its expected gradual stabilization after several very turbulent years during the corona virus pandemic. In addition, high inflation affected the real reduction of salaries in the public sector in 2022, which also reduced government spending. As far as investments are concerned, under the influence of a strong decline in the construction activity, in the second half of 2022 investments moved into the zone of year-on-year decline. However, it is important to note that the total fall in investments in Q4 of 2.7% is significantly lower than the estimated fall in construction activity (12.5%), which indicates that the economy is still maintaining the growth of investments in machinery and equipment of 3-4% . Finally, net exports in Q4 significantly and positively contributed to GDP growth due to faster real growth of exports (12.9%) than imports (6.6%). The main reason for these trends in net exports in Q4 is the international drop in energy prices that Serbia predominantly imports, as well as the warmer winter, which also reduced the amount of imported energy.

Table T2-3. Serbia: GDP by expenditure method, 2017-2022

	Y-o-y indices														Share
							2021				2022				
	2017	2018	2019	2020	2021	2022	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2021
GDP	102.1	104.5	104.2	99.1	107.5	102.3	101.7	113.8	107.8	107.2	104.1	103.8	101.0	100.4	100.0
Private consumption	102.2	103.1	103.6	98.1	107.7	103.7	98.1	117.2	108.3	107.5	106.9	103.8	103.0	101.5	66.0
Government	102.9	103.7	102.0	102.8	104.1	100.2	101.7	98.5	109.3	107.2	102.7	104.9	96.2	97.6	16.9
Investment	106.6	117.5	117.2	98.1	115.9	99.4	111.5	125.1	115.6	113.0	101.2	102.1	98.1	97.3	23.1
Export	108.2	107.5	107.7	95.8	119.5	117.6	108.6	136.3	122.5	114.0	120.0	121.6	116.9	112.9	54.5
Import	111.1	110.8	110.7	96.4	117.7	117.8	98.5	142.4	121.2	113.8	134.9	122.9	111.0	106.6	62.3

Source: SORS

Other CEE countries in Q4 also slowed down economic growth, but continued to achieve slightly better results than Serbia

In Table T2-4, in addition to Serbia, the year-on-year GDP growth rates in the EU 27 and especially in the CEE countries[2] are shown. The Table shows that the entire EU and CEE countries also had noticeably higher economic growth than Serbia in Q4 (1.5% and 1.3%, respectively, compared to Serbia's 0.4%). This negative difference in the economic growth of Serbia compared to most other European countries has existed since the beginning of 2022,

2 In addition to the CEE 11 EU member countries, our data also includes the countries of the Western Balkans.

but in Q4 it was somewhat reduced (especially taking into account that the Serbian economy was extraordinarily affected by the decline in agriculture due to the drought). The reasons why CEE countries, and even the entire EU, achieved faster economic growth than Serbia in 2022 were discussed in more detail in previous editions of QM[3]. To put it simply, Serbia relaxed the epidemiological measures a little earlier, so it recovered faster economically from the health crisis in 2021, but other countries caught up with it in 2022. The comparative results from Q4 indicate that these effects are already being exhausted, so the analysis of the impact of the health crisis on the economy of Serbia and other CEE countries can be completed.

Table T2-4. Serbia and CEE countries: GDP growth in the period 2018-2022

	Y-o-y indices												
	2018	2019	2020	2021	2022	2021				2022			
						Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Serbia	4.5	4.2	-0.9	7.5	2.3	1.7	13.8	7.8	7.2	4.1	3.8	1.0	0.4
EU27	2.1	1.9	-5.6	5.4	3.5	-0.8	14.0	4.3	5.0	5.8	4.4	2.6	1.5
CEE (weighted average)	4.5	4.1	-3.4	6.4	4.3	-0.4	12.6	6.6	6.7	7.6	4.8	3.4	1.3
Albania	4.0	2.1	-3.3	8.5	:	4.2	17.6	6.8	5.5	6.4	2.6	4.0	:
Bosnia and Herzegovina	3.7	2.8	-3.0	7.6	:	3.2	11.8	7.4	7.4	5.7	5.8	2.6	:
Bulgaria	2.7	4.0	-4.0	7.6	3.4	3.7	7.1	8.6	10.2	4.4	3.9	2.9	2.6
Montenegro	5.1	4.0	-13.3	12.1	:	-5.6	16.9	27.9	9.3	4.6	13.6	2.8	:
Czech Republic	3.2	3.0	-5.5	3.6	2.4	-2.2	9.5	3.5	3.6	4.9	3.5	1.5	0.1
Estonia	3.8	3.7	-0.6	8.0	-1.3	2.5	13.9	8.4	7.4	2.9	-0.3	-2.9	-4.1
Croatia	2.8	3.4	-8.6	13.1	6.3	2.6	20.8	16.7	12.2	7.8	8.7	5.2	4.0
Latvia	4.0	2.6	-2.2	4.1	2.0	-0.6	9.8	4.4	2.5	5.5	2.5	0.2	0.3
Lithuania	4.0	4.6	0.0	6.0	1.9	2.8	9.1	5.6	6.5	4.8	1.7	1.8	-0.4
Hungary	5.4	4.9	-4.5	7.1	4.6	-2.2	17.8	6.2	7.4	8.2	6.5	4.0	0.4
North Macedonia	2.9	3.9	-4.7	3.9	2.1	0.1	14.5	1.4	1.2	2.2	4.0	2.0	0.6
Poland	5.9	4.5	-2.0	6.8	4.9	-0.8	11.3	7.4	9.4	10.5	5.2	4.4	0.5
Romania	6.0	3.9	-3.7	5.8	4.8	-0.3	15.4	6.7	2.4	6.3	5.1	3.8	4.6
Slovakia	4.0	2.5	-3.4	3.0	1.7	-0.1	9.9	1.4	1.3	2.9	1.3	1.4	1.1
Slovenia	4.5	3.5	-4.3	8.2	5.4	1.6	16.2	5.1	10.5	10.2	8.6	3.3	0.2

Notes: data for Q4 for three countries have not been published yet: Albania, Bosnia and Herzegovina and Montenegro
Source: QM based on Eurostat data

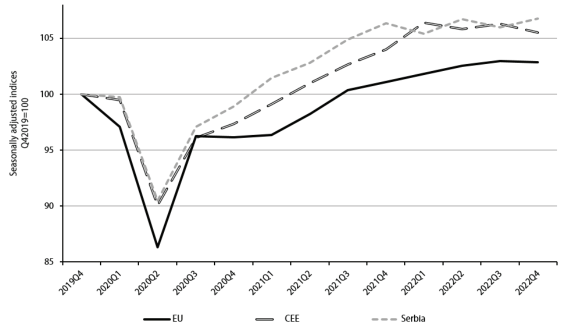
Since the outbreak of the health crisis, the economy of Serbia has had somewhat better but not spectacular results than comparable countries

In the previous three years, from 2020 to 2022, Serbia's GDP increased by around 9%. The growth of comparable CEE countries in the same period was approximately 7.3% on average. So, Serbia had somewhat better results than the average of CEE countries, but this difference is not dramatically large (about 0.5 p.p. per year). At the same time, there are CEE countries that achieved better economic results than Serbia in the previous three years (Croatia, Poland and Slovenia). This is why the frequent assessments of state officials that Serbia is the European champion in economic growth in previous years are unfounded in the data.

In Q4 the noticeable slowdown in economic activity continues throughout Europe

Comparative data also show widespread signs of a slowdown in economic activity in Europe. Year-on-year GDP growth at the EU level in Q1 was 5.7%, and by Q4 it had already decreased to 1.5% (Table T2-4). At the CEE level, the year started with a GDP growth of 7.6% and ended with a growth of 1.3%. The short-term economic growth trends in these groups of countries are even more clearly described by the seasonally adjusted GDP indices that we (including Serbia) presented in Graph T2-5. The Graph also shows from another angle the differences in economic trends since the outbreak of the health crisis in Serbia, the CEE countries and the entire EU, which we wrote about extensively in QM during the previous years. What we are drawing special attention to is that in Q4 2022 the seasonally adjusted GDP index at the level of the entire EU for the first time since the end of the health crisis had a decline compared to the previous quarter (although this decline was minimal and amounted to only 0,1%).

Graph T2-5. Serbia, CEE and EU: seasonally adjusted GDP indices, 2020–2022



Source: *QM* based on Eurostat data

3 For more details, see for example QM68, section "Economic Activity".

We maintain the Serbian GDP growth forecast of 2% in 2023

Economic developments in Serbia, as well as in the entire CEE region, are currently very unstable, which is well illustrated by the fluctuations of the seasonally adjusted GDP in 2022, which can be seen in Graph T2-5. Therefore, it is currently very difficult to assess which way the economic trends will turn in the coming period: whether in the direction of economic recovery, the beginning of a recession, or whether the stagnation that marked the previous year will continue. Even the first available indicators for January 2023 do not provide any more information about this question. Serbia's industrial production in January had a solid year-on-year growth of 4.1%, but its seasonally adjusted index still fell by as much as 2% compared to December 2022. January growth in retail sales (in constant prices) was a low 1.8% - certainly under the influence of high inflation, which continues to accelerate. However, this was again a better result of retail sales than in November and December 2022. To all this, preliminary data on foreign trade from January should be added, which indicate a strong growth in net exports, as exports of goods grew at a rate of 21%, and imports at a rate of 12.5%. So, such divergent movements of January indicators of economic activity definitely cannot reliably indicate in which direction the economic movements of Serbia will continue in the coming period. As a result, somewhat more reliable forecasts of the economic growth of Serbia in 2023 are currently practically impossible. That is why for now we will keep the forecast presented in previous editions of QM, that the GDP growth of Serbia in 2023 could be around 2% - where the largest part of the economy would have a growth rate of around 1.5%, while the expected recovery of agriculture from drought could raise the overall GDP growth rate to around 2%. Of course, this forecast should be treated as conditional and indicative, and it is possible that it will be revised a lot during the current year - as it happened in the period from 2020 to 2022.

Industrial production

In Q4, industrial production recorded a slight year-on-year growth of 0.7%

The entire 2022 was marked by the following trends in industrial production: 1) the total growth of industrial production was relatively low and amounted to 1.7%; 2) within industrial production there were three completely divergent trends – high growth of mining of 22.6%, low growth of the manufacturing industry (1.4%) and a relatively deep decline in electricity production of 7.1% (Table T2-6). Data for Q4, as well as for January 2023, show, however, certain changes in these trends. First of all, the period of deep year-on-year decline in electricity production ended in Q4 - not so much because of the better performance of EPS, but primarily because of the comparison with the lower base from the previous year.[4] Also, mining continued with quite high, double-digit growth rates, although these rates are now somewhat lower than the usual ones from the previous year. Finally, perhaps the most important trend concerns the manufacturing industry, which forms the backbone of industrial production in Serbia and best describes the market trends of the entire industry. The results of the manufacturing industry are gradually deteriorating. The manufacturing industry started the year 2022 with growth rates of over 4% (Table T2-6), but in Q4 this sector of the economy had a decline of 2.3%, and in January 2023 only a slight growth of 0.2%.

Graph T2-6. Serbia: Industrial Production Indices, 2017-2023

	Y-o-y indices															Share
	2017	2018	2019	2020	2021	2022	2021				2022					2021
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	January	
Total	104.2	101.4	100.3	100.5	106.4	101.7	104.1	117.4	102.6	103.8	101.9	104.8	99.5	100.7	104.1	100.0
Mining and quarrying	102.2	95.2	101.2	102.7	127.6	122.6	100.9	125.3	140.6	143.0	139.0	133.0	109.2	116.9	116.3	11.7
Manufacturing	106.6	102.0	100.2	100.1	105.6	101.4	103.0	119.3	100.3	103.0	104.1	104.8	99.1	97.7	100.2	72.6
Electricity, gas, and water supply	94.1	101.2	100.5	101.0	100.7	92.9	109.1	107.5	96.1	90.6	80.9	91.9	95.9	106.0	112.5	15.6

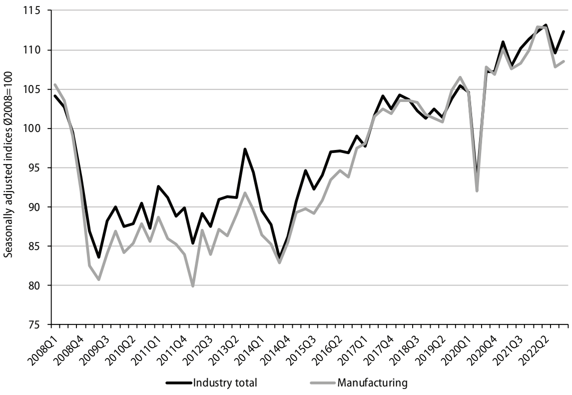
Source: SORS

We have presented the seasonally adjusted indices of industrial production (and separately for the manufacturing industry) in Graph T2-7. The Graph confirms that the peak of industrial production in Serbia was reached in mid-2022, since then it has decreased, especially in the

4 Despite the solid year-on-year growth of this sector of industrial production in Q4 2022 and in January 2023, the production of electricity from the same periods in 2020 has not yet been reached.

Seasonally adjusted indices of industrial production confirm a certain deterioration in the basic trends of industrial production from the second half of 2022

Graph T2-7. Serbia: Seasonally Adjusted Industrial Production Indices, 2008-2022



Source: SORS and Eurostat

manufacturing industry (lighter line on the Graph). Although a certain increase in seasonally adjusted industrial production was recorded in Q4 compared to Q3, its level from Q2 2022 was not reached. We also note that in January 2023 there was a new seasonally adjusted decrease both in total industrial production and in the manufacturing industry (which is not shown in the Graph, as it only shows data on a quarterly level).

In the CEE countries there was a relatively strong slowdown in industrial production in Q4

In Table T2-8 along with Serbia we provide comparative data on industrial production in the EU and especially in the CEE countries[5]. The Table shows that during the health crisis in 2020 Serbia had a significantly smaller drop in industrial production than both the CEE countries and the entire EU. However, in 2021 and 2022 Serbia had lower industrial production growth rates than both observed groups of countries. The CEE countries managed to overtake Serbia on average by the end of 2022, i.e., the cumulative growth of industrial production in the CEE countries in the previous three years averaged 10.7%, and Serbia's in the same period was 8.7%. The data for Q4, however, indicate that the period of relatively high growth of industrial production in the CEE countries is coming to an abrupt end. Year-on-year growth of industrial production in Q4 decreased in CEE to only 1.6% (after 6.1% in Q3). In addition, as many as 9 of the observed 13 CEE countries had a year-on-year decline in industrial production in Q4.[6] At the level of the entire EU such a slowdown of industrial production in Q4 as in the CEE countries has not yet occurred (Table T2-8), but it must also be taken into account that there was no high growth of this activity at the level of the EU even in the first half of 2022 as in CEE.

Table T2-8. Serbia and the CEE countries: the y-o-y growth of industrial production, 2018-2022

	Y-o-y indices												
						2021				2022			
	2018	2019	2020	2021	2022	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Serbia	1.4	0.3	0.5	6.4	1.7	4.1	16.3	2.5	3.8	1.9	4.8	-0.5	0.7
EU27	1.2	-0.2	-7.3	8.3	1.9	4.9	23.7	6.0	1.3	1.1	1.7	2.8	2.1
CEE (weighted average)	4.3	1.8	-5.2	10.9	5.3	5.7	29.0	5.9	6.3	8.2	5.9	6.1	1.6
Bulgaria	1.7	-5.5	-6.6	9.8	0.9	7.0	17.8	8.4	6.7	3.3	4.5	-0.9	-2.8
Montenegro	0.4	0.6	-6.2	10.1	12.8	0.6	16.8	10.5	13.2	17.1	17.5	14.0	3.9
Czech Republic	3.1	-0.4	-7.2	6.6	2.5	4.3	28.2	-0.1	-1.9	0.3	0.8	6.1	3.2
Estonia	4.8	7.1	-2.8	12.8	-2.3	5.8	21.6	12.7	11.8	4.3	2.6	-5.0	-10.4
Croatia	-0.7	0.6	-3.4	6.3	1.6	5.8	13.1	3.1	3.9	3.0	2.5	2.4	-1.5
Latvia	2.0	0.8	-1.7	6.4	0.8	3.7	12.6	6.3	3.5	4.0	3.6	-2.6	-1.2
Lithuania	6.0	2.9	-1.9	20.3	9.3	13.7	25.1	17.6	24.2	23.5	9.2	10.0	-2.5
Hungary	3.9	5.6	-7.1	9.9	5.7	5.5	36.7	2.4	1.2	5.6	4.5	9.2	3.7
North Macedonia	5.4	3.7	-9.5	1.5	-0.3	-6.1	22.3	-3.5	-2.3	3.4	1.3	-1.8	-3.4
Poland	5.8	4.3	-2.1	14.9	11.0	8.5	30.1	10.4	12.9	16.1	12.6	10.2	5.7
Romania	4.3	-3.2	-9.3	6.7	-1.7	1.6	32.5	0.9	-2.4	-0.4	-2.6	-0.6	-3.3
Slovakia	4.5	0.7	-8.1	10.3	-3.7	6.7	36.0	0.9	3.4	-2.6	-3.0	-1.6	-7.0
Slovenia	5.1	3.1	-5.3	10.3	1.5	3.3	25.5	6.1	7.9	6.4	3.0	2.3	-4.9

Source: QM based on Eurostat data

At the moment, it looks like industrial production in Serbia could stagnate in 2023

Taking all of the above into account - the relatively bad trends of the manufacturing industry in Serbia in the second half of 2022 (which will continue in January 2023), as well as the strong and widespread slowdown of industrial production in the entire CEE region - we assess that it is unlikely that the industrial production in Serbia during 2023 will have good results. So far, we

5 Since data on industrial production are available on Eurostat for Bosnia and Herzegovina and North Macedonia, these two countries are also included in the group of CEE countries.

6 Three of the four CEE countries that had positive year-on-year industrial production growth rates in Q4 were Poland, the Czech Republic and Hungary, which together account for around 60% of the total CEE industrial production. Due to such a large weighting, the total growth of industrial production in CEE was positive in Q4 despite the fact that the largest number of countries in the sample (9 out of 13 countries) had a decline in industrial production.

are the closest to the forecast that in 2023 there could be stagnation or low growth in industrial production, like the one that was achieved in 2022. Of course, as with all forecasts of economic activity that are given at the moment, this one is only indicative and it is possible that we will change it in future editions of QM.

Construction Activity

According to the SORS assessment the construction activity had a deep year-on-year decline of 12.5% in Q4, and at the level of the whole of 2022 a decline of around 10%

In Q4, the rather bad results of the construction activity, which lasted throughout 2022, continued and further worsened. The estimated year-on-year decline in construction GVA in Q4 amounted to 12.5% and is somewhat deeper than in the first three quarters of 2022, when it was 8.5% (Table T2-2). The movement of GVA of the construction activity is determined by official statistics mainly on the basis of the value of construction works performed in Serbia at constant prices. According to the SORS assessment, the value of the construction works performed had a year-on-year drop of 13.7% in Q4. At the level of the whole year the decline in construction activity in 2022 is estimated at 9.8%.

However, we always additionally analyze official data on construction activity trends. Namely, construction is an activity that is statistically quite difficult to monitor because it is a very dynamic sector with a large number of companies that are quickly founded and shut down, and a good part of the activity is also carried out in the gray zone. Because of this it sometimes happens that official data on the development of construction activity do not best reflect the real market trends in this sector. This additional analysis that we conducted confirms that the construction activity in Q4, but also in the whole of 2022, significantly worsened its trends compared to previous years and that it was most likely truly in decline. However, it is quite possible that this drop is somewhat less than the 10% the official statistics show.

Indirect indicators suggest that the decline in construction activity in 2022 was perhaps somewhat smaller than official statistics show.

The real wage growth in construction in 2022 was positive and amounted to 0.3%. Also, during 2022 the growth of employment in this sector continued. According to LFS the growth of total employment in construction activity during 2022 was 0.9%, and the growth of registered employment (based on administrative data) was 1.7%. These are noticeably worse trends in employment and wages in construction activity compared to previous years, which confirms that there has been a deterioration in the trend of this activity, but again they do not indicate that during 2022 there was a decline in construction activity by about 10%, as shown by official statistics. Similarly, the cement production index during 2022 also had a minimal growth of 0.6% (Table T2-9). This is also a worse result in cement production than usual in previous years, but again not so bad as to be entirely consistent with the 10% decline in construction activity. Taking everything into account, data from the labor market and the cement production index indisputably confirm that during 2022 there was a significant worsening of the trend, and probably a decline in construction activity during 2022. However, we reserve a certain reserve that this activity has such a deep decline of around 10% - which is shown by the SORS.

Table T2-9. Serbia: cement production index, 2001–2022.

	Y-o-y indices				
	Q1	Q2	Q3	Q4	Total
2001	89.5	103.5	126.9	148.1	114.2
2002	83.6	107.9	115.6	81.6	99.1
2003	51.1	94.4	92.7	94.4	86.6
2004	118.8	107.4	98.5	120.1	108.0
2005	66.1	105.0	105.8	107.4	101.6
2006	136.0	102.7	112.2	120.2	112.7
2007	193.8	108.9	93.1	85.0	104.4
2008	100.1	103.7	108.1	110.2	105.9
2009	34.1	81.4	86.0	75.3	74.4
2010	160.7	96.9	96.0	97.4	101.1
2011	97.7	101.3	96.2	97.7	98.3
2012	107.9	88.3	58.2	84.9	79.6
2013	83.5	78.7	127.6	93.5	94.9
2014	136.2	90.3	96.2	104.7	101.5
2015	77.9	112.4	104.5	108.7	103.1
2016	120.2	109.8	109.9	100.4	108.9
2017	110.4	104.1	96.4	118.7	105.9
2018	107.5	110.6	112.8	106.3	109.7
2019	112.2	96.7	103.3	104.1	102.8
2020	154.9	97.9	112.7	118.2	116.8
2021	80.2	130.8	101.9	101.2	103.9
2022	108.1	97.8	94.3	105.9	100.6

Source: *QM* based on SORS data

It is unlikely that the construction activity will recover in the coming period

For the construction activity, it is currently very difficult to reliably assess existing trends, and it is even more difficult to forecast future trends. At the same time, in the past, it often happened that the construction activity surprised with its results. Although no scenario can be ruled out yet it currently does not seem realistic to expect a turnaround and stronger growth in the construction activity in the near future. The great global uncertainties currently prevailing influence investors to temporarily refrain from investing, and the construction activity is negatively affected by the relatively strong increase in interest rates. For this reason, we expect that the construction activity will continue to decline in 2023, i.e. with similar trends as in 2022. However, it would not be a surprise if the official data in 2023 show a significantly smaller decline in construction activity than in 2022 - not so much because of market trends in construction (which we expect to be similar to 2022), but because that there are hints that the shown decline in this activity in 2022 may have been overestimated by official statistics.

3. Labour Market

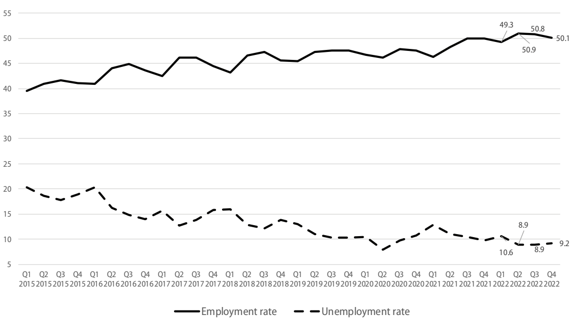
Labour market 2022 results were mixed, with employment and unemployment stagnating while real wages declined for most of 2022. The unemployment rate and employment rate in Q4 2022 remained almost unchanged from the same quarter last year at 9.2% and 50.1%, respectively. Total employment, according to the Labour Force Survey (LFS), decreased by 1% in Q4, while registered employment according to data from the Central Register of Compulsory Social Insurance (CRCSI) increased by 2.4% year-on-year. The rate of informal employment was 12.8%. Informal employment was concentrated in agriculture, where it amounted to 50%. Employment increased in both the public and private sectors, with employment growth in the private sector being higher and amounting to 3% year-on-year. Adjustments in the labour market are seen in the reduction or stagnation of wages in most activities. The average salary was 79 thousand dinars, and in real terms, it was lower in Q4 2022 compared to the same quarter of the previous year by 1.5%. In 2022, compared to 2021, average wages increased by 1.7% in real terms, which was much lower than the real growth rates in previous years (in 2021, the growth was 5.4%, in 2020 it amounted to 7.7%). In 2019 and 2020, wages in real terms grew significantly faster than GDP, so in the last two years wages have been adjusted to the movement of economic activity. Inflation completely devalued the nominal growth of wages in the public sector in Q4 2022, both compared to the previous quarter (a real drop of 2.4%) and compared to the same quarter of the previous year (a real drop of 7.6%), while wages in the private sector increased by 1.3% in real terms. In Q4 2022, the average wage in the public sector was for the first time lower than the average wage in the private sector by about 1,000 dinars. Higher average wages in the private sector compared to the public sector are a consequence of the different dynamics of wage growth in the two sectors. We expect that in the first quarter of 2023, wages in the public sector will be higher on average than in the private sector, given that wages in the public sector increase at the beginning of the year. Labour productivity declined in Q4, while real unit labour costs stagnated.

Employment and Unemployment

In Q4, the employment rate was 50.1%, and the unemployment rate was 9.2%

Basic labour market indicators (employment and unemployment rates) show stagnation (Graph 3. 1). The employment rate was 50.1% and was higher by 0.1 pp compared to the same quarter of the previous year, while the unemployment rate of 9.2% was lower by 0.6 pp compared to the same quarter of the previous year. Although the employment rate was unchanged, there was a drop in the total number of employees by almost 30 thousand, or 1%. The decline in the total population was slightly higher than the decline in the number of employees, 1.2% year-on-year, so the employment rate remained unchanged. The number of unemployed persons also decreased by 26 thousand persons year-on-year. The total number of unemployed in Q4 2022 was less than 300 thousand. The number of unemployed in 2022 was about 50,000 less than the average in 2021, i.e. by 14%.

Graph T3-1 Employment and Unemployment Rate Trends, 15+



Note: Break in the 2021 series.
Source: SORS, LFS

In the period 2010–2022, the structure of the population in the labour market improved, activity and employment increased, while inactivity and unemployment decreased

According to LFS data, the total population decreased by about half a million, or 8% in the period 2010-2022. According to demographic projections, the decrease in the number of inhabitants in Serbia, similar to that in other European countries, represents a long-term trend that will continue in the coming decades. The main drivers

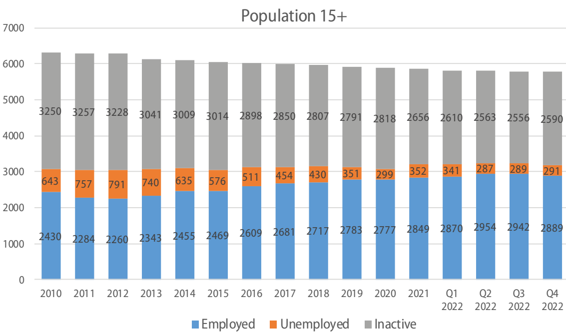
Negative demographic trends have influenced positive changes in the labour market

of population decline are negative natural growth and, to a lesser extent, net emigration. In addition, an increase in the share of the elderly population in the total population is expected. The reduction in the number of inhabitants and the aging of the population will affect the reduction of labour supply, despite the expected increase in the retirement age and the increase in the participation of pensioners in the labour market. The impact of the mentioned factors on the labour market is difficult to predict because they will occur simultaneously with the substitution of some jobs by machines and artificial intelligence, but also with the creation of new jobs.

The rate of informal employment outside agriculture amounted to 6.5%, while in agriculture it was still very high (50.1%)

Reduction of the total population (15+) in the period 2010-2022 was accompanied by a positive change in the structure, the number of employees increased by about half a million (483 thousand), which was a 20% growth, while the number of unemployed decreased by 341 thousand, i.e. by 53%. The number of inactive persons also decreased by almost 700 thousand, or by 21%. Although the total population of 15+ has decreased, the number of active and employed persons has increased, and the number of unemployed and inactive persons has decreased (Graph 3. 2), which we assess as a positive trend. Improvements in the labour market in the last 12 years are a consequence of economic growth, emigration and the aging of the population, which leads to pressures on the labour market, i.e. an increase in employment, and a decrease in unemployment and inactivity.

Graph T3-2 Population Trends, 15+, 2010–2022



Note: Break in the 2021 series.
Source: SORS, LFS

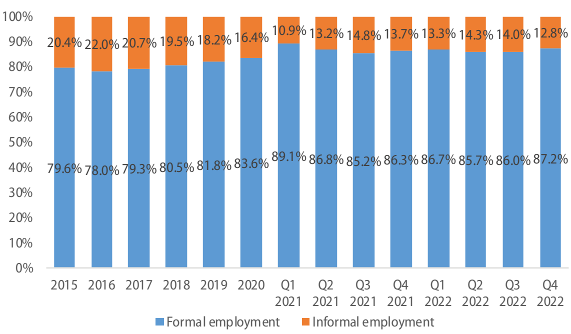
The trend of employment is in line with the trend of economic activity

Employment decreased significantly in Agriculture according to both LFS and CRCSI

Registered employment increased in Industry, Services, and Construction

The rate of informal employment is decreasing, and in Q4 2022 it was 12.8% (Graph 3. 3). The rate of informal employment in agriculture was 50.1%, while outside of it, it was 6.5%.

Graph T3-3 Formal and Informal Employment in % Out of Total Employment, 15+



Note: Break in the 2021 series.
Source: SORS, LFS

The total employment trend employees at legal entities, entrepreneurs and their employees and persons individually running business, according to CRCSI data was in accordance with the trend of economic activity. In 2022, compared to the previous year, the gross value added (GVA) increased by 1.9% in real terms, and employment increased by 1.8%. Observed by activities

Employment increased in both the public and private sectors

Table T3-1 Trends in the Number of Employees (15+) and Real Gross Value Added by Sectors, Year-On-Year Change

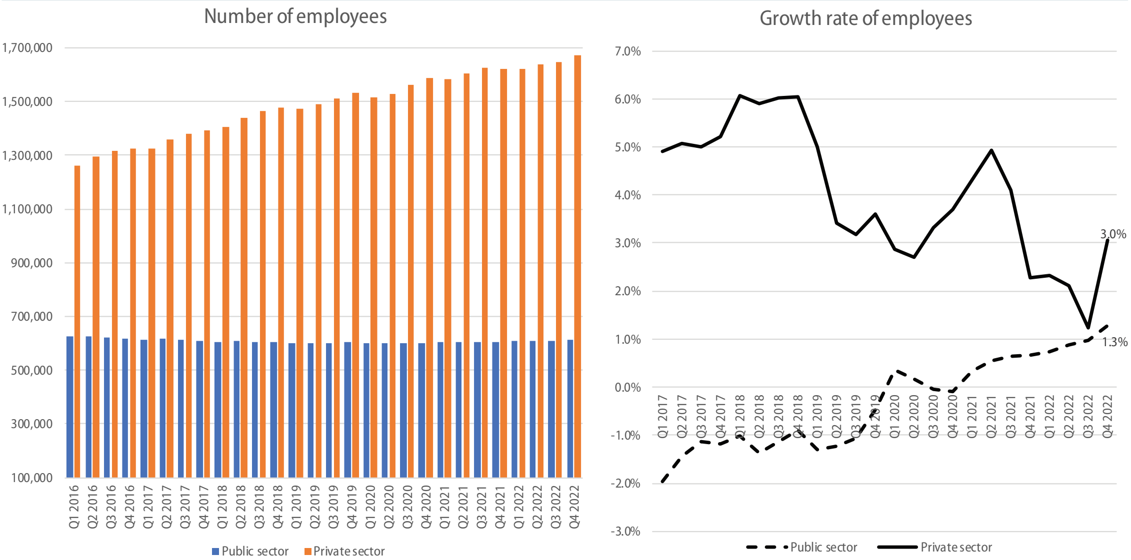
	2017	2018	2019	2020	2021	2022	Q1 2022	Q2 2022	Q3 2022	Q4 2022
Employment CRCSI	3.0%	3.8%	2.4%	2.3%	3.0%	1.8%	1.9%	1.8%	1.2%	2.6%
Total GVA	2.1%	4.3%	4.4%	-0.6%	7.4%	1.9%	3.3%	3.5%	0.7%	0.3%
Employment- agriculture	-0.7%	-1.2%	-5.5%	-1.7%	-1.8%	-5.6%	-4.6%	-5.2%	-6.6%	-6.1%
GVA-agriculture	-11.4%	15.1%	-1.7%	2.3%	-5.7%	-8.3%	-8.4%	-8.6%	-8.5%	-7.8%
Employment-industry	4.7%	5.0%	3.1%	3.3%	2.9%	0.7%	1.2%	1.0%	-0.2%	0.7%
GVA-industry	-0.8%	4.0%	-23.8%	0.5%	6.3%	1.9%	2.0%	4.6%	-0.4%	1.2%
Employment-construction	1.2%	7.9%	9.7%	9.1%	4.8%	1.7%	3.4%	2.1%	0.3%	1.2%
GVA-construction	5.4%	12.4%	33.6%	-3.3%	17.6%	-9.8%	-5.7%	-6.9%	-12.1%	-12.5%
Employment-services	2.5%	3.2%	1.8%	1.5%	2.9%	2.5%	2.1%	2.2%	1.9%	3.6%
GVA-services	5.8%	2.3%	20.1%	-1.1%	8.5%	4.3%	5.8%	5.4%	3.8%	2.6%

Note: Registered employment excluding registered individual farmers was used for employment (CRCSI). Employment in Q4 2022 and in 2022 are previous data. Quarterly data for GVA for 2022 are previous data, while annual data for VAT is the sum of quarterly data.
Source: SORS, CRCSI and SNA

and quarters, we see that Construction, Industry, and Services achieved year-on-year growth in the number of employees, while Agriculture has been constantly recording a decrease in the number of registered employees (Table 3. 1). In the period 2017–2022, the number of registered employees in Agriculture decreased, with the annual decrease in 2022 amounting to 5.6%. According to both data sources, the Construction industry achieved an increase in the number of employees, although the real GDP decreased by as much as 12.5% year-on-year.

The total number of registered employed persons according to CRCSI data was 2 million and 342 thousand in Q4 2022. The number of registered employed persons was higher compared to the previous quarter by 2.4%, i.e. by about 50 thousand employees. Looking at the structure, the number of employees in legal entities has also increased, as well as the number of entrepreneurs and their employees and persons who perform their activities independently. The number of registered individual farmers has decreased. Compared to the same quarter of the previous year, employment increased in both the public and private sectors, with the relative growth in the private sector being higher and amounting to 3% year-on-year. The number of employees in the public sector was 614 thousand, while in the private sector, there were 1 million and 673 thousand employees in Q4 2022. The total registered employment increased in 2022 compared to 2021 by 36 thousand, and the annual growth of employment amounted to 1.8%. The activity with the highest annual growth was Information and Communications, where the number of employees increased by 12 thousand, i.e. 14.2%. Significant annual employment growth was also achieved in Mining (6.7%), Administrative and Auxiliary Services (5.6%), Professional, Scientific, and Technical activities (6.2%), and Real-Estate Business (5.1%). Observed by ownership, compared to the previous year, employment in 2022 increased by 1% in the public sector and 2.2% in the private sector.

Graph T3-4 Trends in Employment in the Public and Private Sector



Note: The data for Q4 2022 is the provisional data. Employment includes the number of employees in legal entities, entrepreneurs and their employees, as well as persons who perform activities independently.
Source: SORS, CRCSI

Wages

The average net wage in Q4 was lower in real terms by 1.5% year-on-year, while in the whole of 2022, it increased by 1.7%

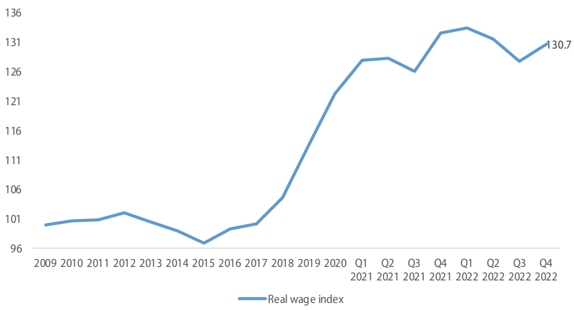
The average net wage in Q4 2022 was RSD 79,302. Year-on-year nominal wage growth was 13.4%, while real wage decreased by 1.5% in Q4 2022. In 2022, compared to 2021, the real wage was 1.7% higher, which is in line with the movement of real GVA (1.9%). In 2022, the lowest real annual wage growth was recorded compared to the previous period (2018–2021). The adjustment of real wages is expected, given that wages have grown faster than GDP and productivity in the past few years.

In 2022, a lower real annual growth of wages was observed compared to the previous three years

Median wages in 2022 were 18 thousand dinars less than the average in 2022, i.e. 24%lower

In the period 2018–2022, median wages grew slightly slower than the average

Graph T3-5 Real Wage Index, 2009=100



Note: Break in the 2018 series.
Source: SORS.

Table T3-2 Median and Average Wage Trends, 2018–2022

	Median (in RSD)	Average (in RSD)	Absolute difference, median and average wage (in RSD)	Relative difference, median and average wage (in % of average wage)
2018	38,749	49,643	-10,894	-21.90%
2019	42,037	54,908	-12,871	-23.40%
2020	45,721	60,057	-14,336	-23.90%
2021	49,931	65,844	-15,913	-24.20%
2022	56,618	74,913	-18,295	-24.40%

Source: SORS

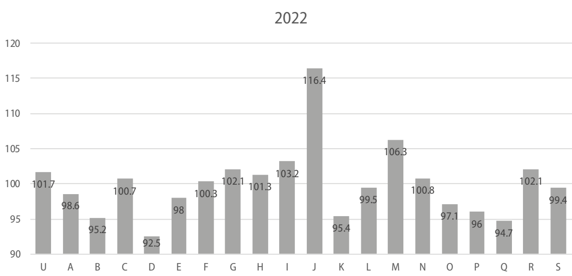
The median wage in 2022 was 57 thousand dinars, while the average wage was 75 thousand dinars. The median wage was lower than the average wage by 18 thousand dinars or 24.4% in 2022. The median wages have been growing slightly slower than average wages since 2018, so the gap has even widened slightly over the past 5 years. This suggests that the wages of employees in the upper part of the salary distribution grew faster than the salaries of employees in the lower part of the distribution. In Q4 2022, median wages amounted to 59 thousand dinars and were 25.6% lower than the average.

Observed by activities, we see that most activities in 2022 had a real decrease in wages or stagnation/slight growth. The real growth of average wages in Serbia of 1.7% in 2022 was the result of relatively high growth of wages in several industries such as Information Technologies and Communications, Professional, Administrative and Scientific activities, while wages in other industries have also declined or stagnated in real terms.

Wages in the private sector in Q4 2022 were for the first time higher than wages in the public sector

Real wages in Q4 2022, compared to the same quarter of the previous year and the previous quarter, were lower in real terms in the public sector, while increasing in the private sector

Graph T3-6 Real Wage Indices by Activities, 2022



Legend: U - total, A - Agriculture, Forestry and Fishing, B - Mining, C - Manufacturing Industry, D - Electricity, Gas, Steam and Air Conditioning Supply, E - Water Supply; Wastewater Management, Controlling the Process of Waste Removal, and similar activities, F - Construction, G - Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles, H - Traffic and Storage, I - Accommodation and Food Services, J - Information and Communications, K - Financial Activities and Insurance, L - Real-Estate Business, M - Professional, Scientific and Technical Activities, N - Administrative and Auxiliary Service Activities, O - State Administration and Defense; Compulsory Social Insurance, P - Education, Q - Health and Social Care, R - Art, Entertainment and Recreation, S - Other Service Activities

In the private sector, for the first time, the average wages were higher than in the public sector, 80 thousand in the private sector and 79 thousand in the public sector, but they were slightly less than the wages in public companies (82 thousand dinars). The slightly higher wages in the private sector in Q4 were the result of a more significant increase in December in the private sector wages compared to the public sector. The dynamics of wage increases differ in the private and public sectors. In the entire public sector, wages increase at the beginning of the year, while wages in the private sector increase throughout the year. Therefore, we expect that in Q1 2023, wages will again be higher on average in the public sector compared to the private sector, as a consequence of the relatively high increase in wages in the public sector at the beginning of this year.

The real year-on-year decrease in wages in the public sector in Q4 2022 was 7.6%, while in the private sector, there was a growth of 1.3%. Compared to the previous quarter, wages in the private sector rose by 4.3% in real terms, while in the public sector, wages fell in real terms by 2.4%. Wages in the public sector decreased in real terms both compared to the previous quarter and to the same quarter of the previous year.

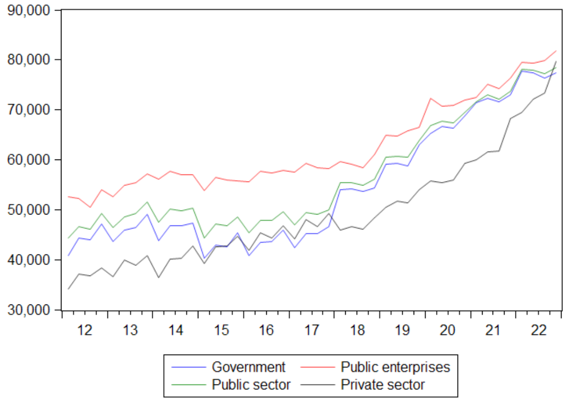
The average wage in euros was 676 euros, which was 13.6% higher than in the same period last year. The growth of wages in euros corresponds to the growth of wages in dinars (13.4% nominal), due to the unchanged dinar exchange rate. Therefore, the growth of average wages in

The average wage in euros was 676 euros

The growth of wages in euros corresponds approximately to the nominal growth of wages in dinars due to the fixed dinar exchange rate

Labour productivity in Q4 2022 declined year-on-year, while real unit labour costs were unchanged

Graph T3-7 Average Wage Trends in the Public Sector, Public Enterprises, State and Private Sector, RSD



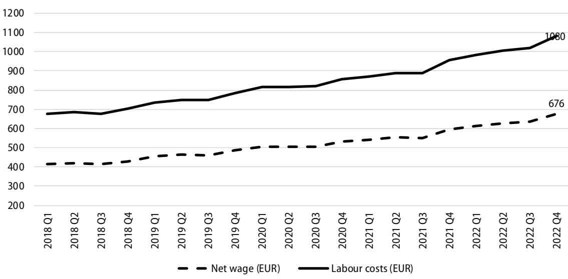
Note: Break in the 2018 series.
Source: SORS

euros and in Serbia during the previous years does not even remotely reflect the change in their purchasing power. For example, wages in euros from 2016 to 2022 increased by 70%, while in the same period their real growth, i.e. the increase in purchasing power, was 32%. Similarly, the growth of wages in euros from 2012 to 2022 was 74%, while real wages increased by 28% in the same period.

Labour Productivity

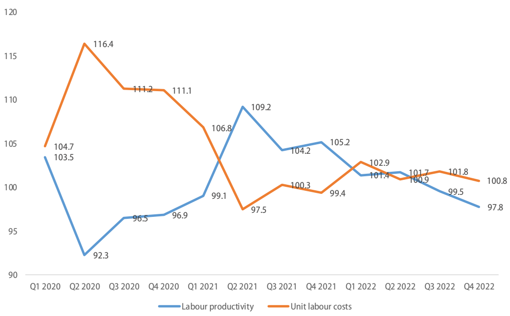
Registered employment in Q4 2022 (excluding individual farmers) increased by 2.6% year-on-year, while real GDP increased by 0.3%. In Q4, labour productivity decreased by 2.2% in real terms compared to the same quarter of 2021, while unit labour costs increased by 0.8%. In the second half of 2022, labour productivity experienced a year-on-year decline, while unit labour costs stagnated. In 2022, labour productivity was unchanged compared to the previous year, while real unit labour costs increased by 1.6%.

Graph T3-8 Average Net Wages and Employer Costs in EUR



Source: SORS for wages, NBS for exchange rates.

Graph T3-9 Trends in Labour Productivity and Real Unit Labour Costs, Q1 2020 – Q4 2022



Note: Registered employment excluding registered individual farmers was used for employment (CRCSI). Employment in Q4 2022 is preliminary data. Quarterly data for GVA for 2022 are provisional data.
Source: Author's calculations using SORS data.

Appendix

Table D3-1 Basic Labour Market Indicators

	2017	2018	2019	2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022
Activity rate (%)	54.0	54.5	54.6	54.0	53.1	54.3	55.8	55.4	55.2	55.8	55.8	55.1
Employment rate (%)	46.7	47.6	49.0	49.1	46.3	48.3	50.0	50.0	49.3	50.9	50.8	50.1
Unemployment rate (%)	13.5	12.7	10.4	9.0	12.8	11.1	10.5	9.8	10.6	8.9	8.9	9.2
Informal employment rate (%)	20.7	19.5	18.2	16.4	10.9	13.2	14.8	13.7	13.3	14.3	14.0	12.8

Note: Break in the 2021 series.
Source: SORS.

Table D3-2 Average Net Wages and Employer Costs in EUR

	2018	2019	2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022
Average net wages, total, (€)	420	466	511	541	553	552	595	613	628	634	676
Average net wages, industry, (€)	413	454	485	502	519	514	546	553	575	579	617
Labour costs, total (€)	684	754	827	869	890	888	955	981	1006	1017	1080
Labour costs, industry (€)	672	734	784	807	835	828	877	884	923	930	988

Note: Industry includes activities B, C and D, weighted average wages. Exchange rate of the dinar against the euro, period average (NBS).
Source: Author's calculation using SORS and NBS data.

4. Balance of payments and foreign trade

In 2022, the current account deficit amounted to 4.14 billion euros (6.9% of GDP), which is significantly above the 2021 level of 2.27 billion euros (4.2% of GDP). Observed by individual quarters of 2022, the level of the current account deficit is the result of high values in the first half and significantly lower values in the second half of the year. The higher current account deficit in 2022 compared to 2021 is dominantly the result of the growth of the goods deficit, and to a lesser extent the growth of the deficit on the primary income account, while at the same time there was an increase in the net inflow on the secondary income account and on the services account. Foreign trade flows, remittances and outflow of income from capital increased due to the world inflation. The high value of the trade deficit is significantly above the average for the last ten years, and the increase is mostly the result of the growth of the deficit in energy trade. Export of goods amounted to 26.9 billion euros, which is 28% higher than last year, while imports reached 36.3 billion euros, which is 34% higher than last year. This increase in the value of exports and imports is largely due to the rise in world prices - the unit value of both exports and imports was higher than last year in all four quarters. The ratio of export and import prices (terms of trade index) was below 100 in all four quarters, indicating worsening trade relations, which acted in the direction of the growth of the foreign trade and current account deficits during 2022. The inflow based on secondary income was significant due to the very high net inflow of personal transfers - 4.6 billion euros, i.e., 7.7% of GDP, of which workers' remittances were 3.7 billion euros, i.e., 6.1% of GDP. In 2022 an extremely high inflow of capital was recorded, which led to a significant growth of foreign exchange reserves. The net inflow of FDI was at a very high level (4.3 billion euros, i.e., 7.1% of GDP) and almost a fifth above last year's. At the same time, there was an increase in foreign indebtedness of the private sector, and to a greater extent of the public sector and the NBS, which was reflected in the accelerated growth of external debt.

In 2022 the current account deficit was EUR 4.14 billion, i.e. 6.9% of GDP...

...significantly above the level recorded in 2021...

...in the second half of the year significantly lower than in the first half of the year

The foreign trade and current account recorded high deficits in 2022, although the results were better in the second half of the year. In 2022, a deficit of 4.14 billion euros (6.9% of GDP) was realized on the current account of the balance of payments. Such a level of the current deficit is significantly above the level recorded in 2021 of 2.27 billion euros (4.2% of GDP). Observed by individual quarters of 2022, the realized level of the current account deficit at the level of the year is the result of a relatively high level in the first half (on average 10.5% of GDP) and significantly lower level in the second half of the year (on average 3.8% of GDP).

Such increase of the current account deficit in 2022 compared to 2021 is largely the result of an increase in the goods deficit (by as much as 4.2 pp of GDP, i.e., from 11.3% to 15.5% of GDP), as well as, to a lesser extent, the growth of the deficit on the primary income account[1] (by 1.1 pp of GDP, i.e., from 3.9% to 5.0% of GDP). On the other hand, there was an increase in net inflow on the secondary income account (by 1.5 pp of GDP, i.e., from 8.3% to 9.8% of GDP) and on the services account (by 1.2 pp of GDP, i.e., from 2.6% to 3.8% of GDP, Table T4-1).

The high value of the goods deficit was above the average in the last ten years...

During 2022 goods deficit of 9.35 billion euros was recorded, i.e., 15.5% of GDP, while a surplus was realized on the services account of 2.32 billion euros (3.8% of GDP). Thus, in 2022, the foreign trade deficit amounted to 7.04 billion euros, i.e., 11.7% of GDP (Table T4-1 and Graph T4-2).

...exports, imports, remittances and outflow of income from capital increased due to world inflation

The high value of the goods deficit is significantly above the average for the last ten years, and the incre ase is mostly the result of the growth of the deficit in energy trade. The export of goods amounted to 26.9 billion euros (39% of GDP), and was 28% higher than in the previous year. Imports reached 36.3 billion euros (51% of GDP), and were 34% higher than in the previous year. This increase in the value of exports and imports is largely a result of the rise in world prices - the unit value of exports and imports increased by 18.2% and 22.9%, respectively. The ratio

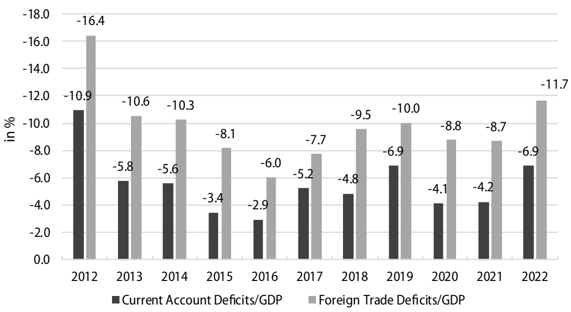
1 This item in the balance of payments includes compensation for employees, dividends, reinvested profits, interest and other income from factors of production.

Table T4-1 Serbia: Balance of Payments

	2020	2021	2022	2022 Q1	2022 Q2	2022 Q3	2022 Q4
				mil. euros			
CURRENT ACCOUNT	-1,929	-2,266	-4,139	-1,532	-1,366	-404	-837
Goods	-5,201	-6,020	-9,353	-2,579	-2,739	-1,884	-2,152
Credit	16,079	21,018	26,913	6,150	6,822	6,816	7,126
Debit	21,280	27,038	36,266	8,728	9,560	8,700	9,278
Services	1,102	1,398	2,316	489	408	531	888
Credit	6,191	7,800	11,087	2,167	2,549	3,117	3,253
Debit	5,090	6,402	8,771	1,679	2,141	2,586	2,365
Primary income	-1,425	-2,058	-3,013	-522	-687	-753	-1,052
Credit	571	536	654	137	167	160	191
Debit	1,996	2,594	3,667	658	854	913	1,243
Secondary income	3,595	4,414	5,912	1,079	1,652	1,702	1,479
Credit	4,346	5,294	7,189	1,349	1,943	2,099	1,799
Debit	751	880	1,277	269	291	397	320
Personal transfers, net 1)	2,859	3,310	4,622	807	1,247	1,423	1,145
Of which: Workers' remittances	2,121	2,511	3,669	618	1,012	1,217	821
CAPITAL ACCOUNT - NET	-30	-25	-25	-3	-8	-6	-9
FINANCIAL ACCOUNT	-2,079	-2,122	-3,783	-1,611	-1,411	-156	-606
Direct investment - net	-2,938	-3,657	-4,306	-562	-935	-1,284	-1,525
Portfolio investment	-1,624	-1,556	64	185	-98	-205	183
Financial derivatives	87	32	-99	11	-36	-56	-17
Other investment	2,125	440	-2,362	1,011	-658	-270	-2,446
Other equity	1	-2	-2	-2	0	2	-2
Currency and deposits	718	678	285	785	-437	-12	-51
Loans	-454	-776	-3,369	-145	-652	-413	-2,159
Central banks	8	4	-986	0	0	0	-986
Deposit-taking corporations,	-477	-135	-112	161	-311	-144	182
General government	295	-484	-1,629	-118	-256	-155	-1,099
Other sectors	-280	-161	-642	-187	-85	-113	-256
Insurance, pension, and standardized	4	-30	0	0	0	0	0
Trade credit and advances	1,856	1,329	724	374	431	153	-234
Other accounts receivable/payable	0	0	0	0	0	0	0
SDR (Net incurrence of liabilities)	0	760	0	0	0	0	0
Reserve assets	270	2,619	2,919	-2,256	316	1,659	3,200
ERRORS AND OMISSIONS, net	-121	169	381	-76	-37	255	240
PRO MEMORIA				in % of GDP			
Current account	-4.1	-4.2	-6.9	-11.8	-9.1	-2.6	-5.0
Balance of goods	-11.1	-11.3	-15.5	-19.9	-18.3	-12.0	-12.8
Exports of goods	34.4	39.4	44.6	47.4	45.7	43.4	42.5
Imports of goods	45.5	50.7	60.1	67.3	64.0	55.4	55.3
Balance of goods and services	-8.8	-8.7	-11.7	-16.1	-15.6	-8.6	-7.5
Personal transfers, net	6.1	6.2	7.7	6.2	8.4	9.1	6.8
GDP in euros 2)	46,796	53,329	60,371	12,973	14,929	15,702	16,767

Note: The balance of payments of the Republic of Serbia is aligned with the international guidelines contained in the IMF Balance of Payments Manual no.6 (BPM6).
Source: NBS
1) Personal transfers represent current transfers between resident and non-resident households.
2) Quarterly values. The conversion of annual GDP into euros was done at the average annual exchange rate (average of the NBS official daily average exchange rates).

Graph T4-2 Serbia: Current and Foreign Trade Deficits, 2012- 2022



Source: NBS, *QM*

of export and import prices (terms of trade index) was below 100 in 2022, indicating worsening terms of trade. The relatively high surplus on the services account was favorably influenced primarily by the rapid growth of tourism, information and communication services and business services[2]. In 2022 the export of goods and services was at the level of 38 billion euros (63% of GDP), and the import of goods and services reached 45 billion euros (74% of GDP), which represents an increase of, respectively, 32% (9 pp of GDP) and 35% (12 pp of GDP), compared to the corresponding values in 2021.

2 See Inflation report, February 2023, page 43

In 2022 the net inflow on the secondary income account reached 5.91 billion euros (9.8% of GDP), of which the net inflow on the personal transfers account was 4.62 billion euros (7.7% of GDP), where EUR 3.7 billion, i.e., 6.1% of GDP, was a net inflow from workers' remittances. Therefore, their share in GDP was approximately 1.5 pp of GDP above the respective levels from the previous year, and at the level of record high values from 2018 (Table T4-1). Remittances usually have a counter-cyclical character - in periods of global crises, the inflow of these funds in recipient countries usually increases, as we wrote in previous issues of QM. Additionally, inflation had such effect that the value of remittances, as well as all key macroeconomic indicators, was nominally higher. In addition, the value of remittances was certainly influenced by the immigration of the population, which was stimulated by the conflict in Ukraine. A net outflow based on primary income of 3.01 billion euros (5.0% of GDP) was recorded, which was 1.1 percentage points higher than previous year's net outflow on this basis. The dominant reason for this increase in the primary income deficit was higher expenditures based on income from FDI, i.e., more significant outflows based on the withdrawal of dividends abroad.

High inflow of capital due to the inflow of FDI and borrowing based on financial loans...

...high growth of foreign exchange reserves

The total net inflow of capital during 2022 was 6.68 billion euros[3]. The high inflow of capital is the result of a significant net inflow based on FDI and other investments, on the one hand, as well as a net outflow based on portfolio investments (purchase of Serbian government bonds by foreigners), on the other hand (Table T4-1). During 2022, the net FDI inflow amounted to 4.3 billion euros, which was 7.1% of the value of the annual GDP. Compared to the previous year, the net inflow of FDI in 2022 was higher by almost 650 million euros (by 0.3 pp of GDP). Thus, the current account deficit was covered by a net inflow based on FDI, which has been the case since 2015. Borrowing on the basis of other investments of 2.36 billion euros, net, was largely the result of borrowing on the basis of financial loans (3.37 billion euros[4], due to borrowing of: the state 1.63 billion euros, NBS 1 billion euros, businesses 642 million euros and banks 112 million euros). The net outflow was recorded on the account **of** *Trade credits and advances* (of 724 million euros) and *Cash and deposits* (285 million euros). During 2022 foreign exchange reserves were increased by 2.92 billion euros.

In Q4 2022 the current account deficit was EUR 837 million, i.e. 5.0% of GDP...

... at a lower level observed year-on-year and compared to the first half of 2022...

The lower level of the year-on-year current account deficit was the result of an increase in the surplus on the basis of services

During Q4 2022 the current account deficit amounted to 837 million euros, i.e., 5.0% of GDP. Thus, the current account deficit was 119 million euros, i.e., 1.5 pp of GDP below the level in Q4 2021 (when it amounted to 6.4% of GDP, Table T4-1). The lower level of the current account deficit in Q4 2022 compared to Q4 2021 was primarily a result of the increase in the surplus based on services (by 2.4 pp of GDP) and, to a lesser extent, the reduction of the trade deficit (by 0.5 pp of GDP). At the same time, there was an increase in the deficit on the primary income account (by 1.4 pp of GDP), while the share of the secondary income surplus in GDP remained almost unchanged.

In Q4 2022 the current account deficit of 5.0% of GDP was higher than in the quarter before, but was below the level from the first half of the year (Q1: 11.8%, Q2: 9.1%, Q3: 2.6 %). The foreign trade deficit in Q4 amounted to 1.26 billion euros, i.e., 7.5% of GDP and was 2.9 pp of GDP below the value from Q4 2021. The goods deficit amounted to 2.15 billion euros, i.e., 12.8 % of GDP. This was in absolute value by around 170 million euros higher, but relatively by 0.5 pp of GDP above the level from Q4 2021. The surplus on the services account in Q4 reached 888 million euros (5.3% of GDP) and was significantly higher than previous year's value from Q4 - by 462 million euros, i.e., by 2.4 pp of GDP.

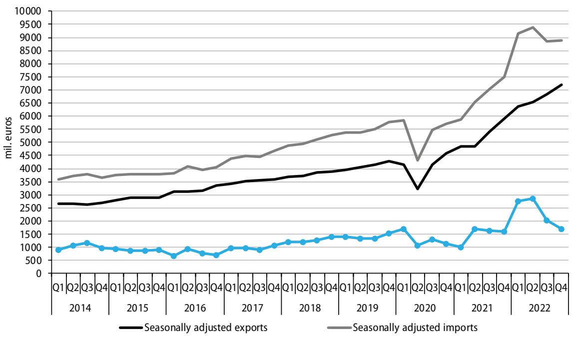
During Q4, goods worth 7.13 billion euros were exported, while imports in this period amounted to 9.28 billion euros. This is, respectively, higher than the values from the same period of the previous year by 21.5% and 18.2%[5]. However, at the end of 2022 both import and export flows were

3 7.06 billion euros with the account of Errors and omissions.

4 Part of the additional borrowing was a loan from the United Arab Emirates, as well as the withdrawal of part of the funds approved under the standby arrangement with the IMF, see Inflation Report, February 2023, page 44.

5 NBS data for import and export of goods differ from SORSs data (in the following sections Exports and Imports, below) because they do not include goods undergoing processing (see Box 1 on the change in the methodology for calculating the Balance of Payments in QM37). Therefore, there is a certain difference in the levels of exports and imports, as well as growth rates, depending on whether the data source is NBS or SORS.

Graph T4-3 Serbia: Seasonally Adjusted Exports and Imports, quarterly values, 2014- 2022

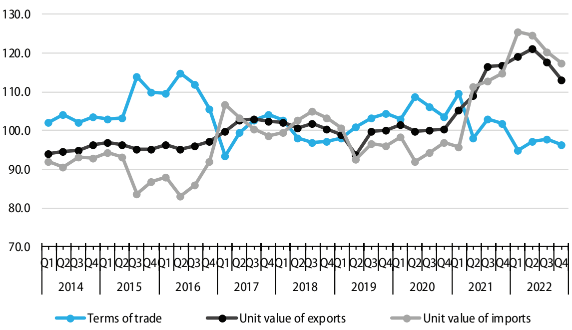


Source: NBS, SORS, *QM*

affected by the slowdown in external demand (due to the slowdown in economic activity in EU countries), the slowdown in domestic economic activity and drop in world prices[6]. The share of export of goods in GDP was 3.0 pp above the level in Q4 a year earlier, while the share of imports in GDP increased by 2.5 pp at the same time. At the same time, the coverage of imports by exports was still at the usual level of 77%. Seasonally adjusted data in Q4 compared to Q3 2022 indicate that exports were 5% higher, while imports were stagnant (Graph T4-3). Compared to Q2 2022, exports were higher by 10% and imports were lower by 5%.

Deterioration of terms of trade, as in the previous quarters of 2022

Graph T4-4 Year-on-Year Trade Ratio Indices, 2014- 2022



Source: SORS, *QM*

Export and import prices, expressed in euros, achieved high growth during 2022. Import prices increased by 22.9%, while export prices increased by 18.2%, but it is relevant to note that export and import prices decreased after the first quarter (see Graph T4.4). The ratio of export and import prices (terms of trade index) was below 100 in Q4 2022, as well as in the previous three quarters of 2022 - indicating a worsening of the terms of trade. The index in Q4 of 96.4 indicates that terms of trade were 3.6% less favourable than in the same period of 2021 (see Graph T4-4). Moreover, in Q4 the unit value of both exports and imports was higher than in the previous year, which is the case in all four quarters.

Very high inflow of capital and a noticeable increase in foreign exchange reserves

The net inflow on the secondary income account was 1.48 billion euros in Q4, i.e., 8.8% of GDP. Thus, the share of net inflows in GDP was almost unchanged compared to the share a year earlier (Table T4-1). Within this inflow, the inflow based on personal transfers accounted for 6.8% of GDP. A deficit of 1.05 billion euros (6.3% of GDP) was recorded on the primary income account. The realized deficit significantly exceeded the level from Q4 2021 - by 327 million euros, i.e., by 1.4 pp of GDP.

In Q4 2022 a very high capital inflow of 3.80 billion euros[7] was recorded (Table T4-1). There was a significant inflow of FDI (1.53 billion euros, net, i.e., 9.1% of GDP), and an extremely high inflow from other investments (2.45 billion euros, net - of which 2.2 billion euros is net borrowing on the basis of financial loans, of which EUR 1 billion is state borrowing). On the other hand, there was a net outflow of capital in the portfolio investment account of 183 million euros. During Q4, a noticeable increase in foreign exchange reserves of the NBS of 3.2 billion euros was recorded.

Exports

Exports in 2022 amounted to 27.6 billion euros, 26.3% more than in 2021.

The realized value of exports in 2022 was 27.6 billion euros, which is 26.3% above the value recorded in 2021. In 2022 year-on-year exports and imports slowed down the growth in second half of the year compared to the first half of the year, although the slowdown in imports was

6 See section *"Economic Activity"* of this issue of *QM*
7 4.04 billion euros with the Errors and omissions account.

much more pronounced. After the growth of exports in Q1 of 29%, and in Q2 of 32%, exports recorded growth of 23% in Q3 and 19% in Q4 (Table T4-5). The slowdown in the growth of the value of exports, and especially of imports, during the second half of the previous year is largely the result of the drop in global product prices. At the beginning of 2023, exports slightly accelerated the growth again compared to the end of 2022, because in January 2023 exports were 21% above the value in January 2022. This dynamic of the growth of domestic exports in 2022 can be directly linked to the slowdown in the economic activity of our most important foreign trade partners - EU countries and the region.

Slowing growth of Intermediate and Non-durable products

In Q4 2022 year-on-year growth in the value of exports was recorded for all product groups, with the exception of Other (unclassified) exports. In fact, the growth dynamics of total exports is largely determined by the dynamics of three product groups (with the largest share in total exports): Intermediate products, Non-durable consumer products and Capital products. The exports of Intermediate products had a significant slowdown in growth from quarter to quarter (respectively from Q1 to Q4: 51%, 43%, 21% and 15%). The slowdown in Q4 was also noticeable in Non-durable consumer goods compared to growth from the previous quarters of 2022 (in Q4 growth of 14% year-on-year, after stable growth of around 25%-28% in the previous three quarters). The exports of capital products continued to record a significant increase of 30% year-on-year, which is at the level of growth from Q3, but faster than in the first half of the year (Table T4-5).

The stable growth of exports of Capital products of 30% year-on-year continues in January 2023

Energy exports accelerates growth

In 2022 Energy exports recorded growth rates of 67% in Q1 and 88% in Q2, then slowed down in Q3 (14% year-on-year growth) and again accelerated the growth in Q4 (58% year-on-year growth), and in January 2023 the growth was by 127% above the one from January 2022. Bearing in mind the year-on-year growth in the price of energy in euros per quarter (76%, 86%, 59% and 24% respectively), the exported amount of energy products compared to the same period in 2021 was 5% lower in Q1, unchanged in Q2, lower by 28% in Q3 and higher by 27% in Q4.

Table T4-5 Serbia: Exports, Year-on-Year Growth Rates, 2021– 2022

	Exports share in 2022	2021	2022	2022			2022		
				Q2	Q3	Q4	Q2	Q3	Q4
	in %			in mil. euros				in %	
Total	100.0	21,858	27,605	6,914	6,823	7,148	32.0	22.7	18.7
Total excluding road vehicles	96.9	21,076	26,758	6,679	6,625	6,915	33.1	23.0	18.7
Energy	5.5	864	1,506	270	212	343	87.7	13.8	57.6
Intermediate products	43.8	9,265	12,095	3,197	2,994	3,008	42.8	20.7	14.6
Capital products	19.8	4,455	5,462	1,325	1,343	1,610	17.1	30.3	30.5
Capital products excluding road vehicles	16.7	3,672	4,615	1,090	1,145	1,376	19.4	33.9	32.5
Durable consumer goods	4.7	1,044	1,309	327	345	362	20.2	37.8	32.0
Non-durable consumer goods	20.5	4,612	5,673	1,359	1,523	1,499	26.0	28.5	13.6
Other	5.7	1,619	1,560	437	406	327	17.2	-5.1	-7.3

Source: SORS

In 2023 we expect that exports will continue to be dominantly determined by the movement of prices on the world market, as well as by the movement of economic activity in European countries.

We expect that an important factor in the value of domestic exports in 2023 - as was the case in 2022 - will be the movement of product prices on the world market. In addition, the domestic exports result will be determined by achievements in the field of economic activity in the countries of the eurozone and surrounding areas. If the current slowdown in economic activity in the EU continues, it may adversely affect the domestic exports result in the coming quarters. Additionally, the real appreciation of the dinar against the euro from the previous period will have a negative impact on the value of exports in the upcoming period as well.

Imports

In 2022, goods worth 39.0 billion euros were imported (Table T4-6), which was 34.8% more than the realized imports in 2021. In the first half of the year, imports recorded a very high year-on-year growth (48% in Q1 and 40% in Q2), while growth slowed down in the second half of the year, although it was still significantly above previous year's levels (23.8% in Q3 and 18.9%

Imports of 39.0 billion euros in 2022...

... a significant year-on-year growth of 34.8%, largely due to the rise in world prices

in Q4). The slowdown in imports growth in the second half of the year was largely due to the slowdown in energy imports value growth (after year-on-year growth rates of energy imports of 291% in Q1 and 147% in Q2, followed by year-on-year growth of 52% in Q3 and 45% in Q4), due to the drop in energy prices, but also lower electricity imports. In addition, the slowdown in domestic economic activity acts in the direction of slowing down the growth of imports. In January 2023, the slowdown in imports growth continued, and it was 12.5% above the value from January 2022, largely due to a significant slowdown in the growth of the value of energy products (year-on-year growth of 5.5%). Since exports were at an unchanged level, while imports were recording such pronounced growth, at the beginning of 2023 the goods deficit decreased.

The evident slowdown in imports growth during 2022 continues in January 2023...

...slowdown in imports for most production groups, especially Energy

Imports in Q4 2022 amounted to 9.87 billion euros, which was 18.9% higher than the value from Q4 2021. Compared to the previous quarter, but also to the first half of the year, all production groups (with the exception of non-durable consumer goods) recorded a slowdown in import growth (Table T4-6). During Q4 energy imports grew at a rate of 45% year-on-year. The import of intermediate products recorded a year-on-year increase of 10.7% (after higher year-on-year growth in Q3, and especially in the first half of the year). In Q4 2022 the import of capital goods was 8.1% higher than the value from Q4 of the previous year, while at the same time the import of durable consumer goods increased by 6.2%, and other imports by 29.5%. In contrast to the noticeable slowdown in the growth of these mentioned production groups, the only exception is the import of non-durable consumer goods. The import of these products recorded an acceleration of growth of 24% year-on-year, after year-on-year growth of 21%-22% in the previous three quarters (Table T4-6).

Table T4-6 Serbia: Imports, Year-on-Year Growth Rates, 2021- 2022

	Imports share in 2022	2021	2022	2022			2022		
				Q2	Q3	Q4	Q2	Q3	Q4
	in %	in mil. euros					in %		
Total	100.0	28,935	39,009	9,924	9,036	9,866	40.0	23.8	18.9
Energy	17.5	2,914	6,823	1,518	1,116	1,335	147.3	51.7	44.8
Intermediate products	34.7	10,864	13,547	3,568	3,248	3,368	32.0	16.8	10.7
Capital products	17.1	5,778	6,687	1,854	1,609	1,703	23.5	9.9	8.1
Durable consumer goods	1.8	614	693	166	158	189	14.5	10.3	6.2
Non-durable consumer goods	14.9	4,677	5,825	1,390	1,378	1,701	21.6	21.6	24.1
Other	13.9	4,088	5,434	1,428	1,527	1,570	45.3	47.1	29.5
Imports excluding energy	82.5	26,021	32,186	8,406	7,920	8,531	29.8	20.7	15.6

Source: SORS

The value of imported energy in Q4 was 45% higher year-on-year, which represents a continuation of the slowdown in growth from the previous two quarters. The growth in price of oil derivatives in euros in Q4 2022 was 24% year-on-year[8], an important part of the realized growth in value of energy imports was the rise in price levels. In fact, when the increase in energy prices is excluded, the calculation indicates that the imported quantities of these products are 16% higher than last year. This is a much more "rational" increase in the imported quantities of these products, in contrast to the first half of the year, where, excluding price growth (by an average of 80% year-on-year), the imported quantities of energy products were 123% more in Q1 and 33% more in Q2 compared to the same quarters in 2021.

Problems in the operations of domestic public companies from the energy sector are an important factor in the high growth of the value of imports

The global energy crisis led to an increase in prices of energy products, on the one hand, while the present problems in domestic power system led to an increase in imported quantities at very high prices in the first half of the year, on the other hand. In fact, at the end of 2021 and first half of 2022, there was an increased import of gas (for the purposes of electricity generation), coal and electricity, as well as the formation of strategic energy stocks. Thus, the mentioned problems in the operations of domestic public companies from the energy sector represent an important factor in high growth of imported value, and consequently the growth of the foreign trade and current account deficit in 2022, which we wrote about in previous issues of QM.

8 Author's calculation, based on World Bank data on Brent oil prices. Prices in dollars increased year-on-year by 11%.

Prices and domestic economic activity are important factors of domestic imports in 2023

The energy crisis and rise in energy prices had a dominant impact on the high value of domestic imports in 2023. In addition, domestic problems related to public companies from the energy sector affected significant quantitative imports in the first half of 2022, and the total imported value in this year. In 2023, one of the main factors of the value of imports will definitely be the price movement of imported products, as well as the level of domestic economic activity. At the beginning of the year, energy prices are slightly below last year's (9% in dollars, 5% in euros according to World Bank data and author's calculations). Furthermore, geopolitical circumstances will significantly determine the price of energy, i.e., whether it will be formed at last year's high level or above/below it. If the trends of falling energy prices continue (i.e., if in 2023 they are below last year's highs), as well as if the slowdown in economic activity from Q4 2022 continues[9], this would be reflected in the slowdown in import growth in 2023. The effect of the real appreciation of the dinar against the euro will be positive on the value of imports, i.e., it will act in the direction of its increase in the future period.

Foreign debt

Foreign debt amounted to 39.98 billion euros, i.e., 68.4% of GDP

At the end of Q3 2022, foreign debt amounted to 39.98 billion euros and makes up 68.4% of GDP[10]. Thus, during the period January-September the foreign debt increased by around 3.5 billion euros, although its share in GDP remained unchanged (Table T4-7).

TableT4-7 Serbia: Foreign Debt Trend Dynamic, 2020 –2022

	2018	2019	2020	2021	2022		
					Mar.	June	Sep.
	stocks, in EUR millions, end of the period						
Total foreign debt	26,662	28,254	30,787	36,488	36,947	38,295	39,976
(in % of GDP) 4)	*62.2*	*61.5*	*65.8*	*68.4*	*67.6*	*67.7*	*68.4*
Public debt 1)	13,425	13,866	14,978	19,144	19,232	19,734	20,487
(in % of GDP) 4)	*31.3*	*30.2*	*32.0*	*35.9*	*35.2*	*34.9*	*35.1*
Long term	13,425	13,866	14,978	19,144	19,232	19,734	20,487
o/w: to IMF	0	0	0	0	0	0	0
o/w: Government obligation under IMF SDR allocation	472	479	455	480	1,181	1,215	1,239
Short term	0	0	0	0	0	0	0
Private debt 2)	13,238	14,387	15,809	17,345	17,715	18,561	19,489
(in % of GDP) 4)	*30.9*	*31.3*	*33.8*	*32.5*	*32.4*	*32.8*	*33.3*
Long term	11,836	12,462	14,223	15,732	15,981	16,554	17,123
o/w: Banks debt	1,717	1,959	2,348	2,629	2,625	2,641	2,702
o/w: Enterprises debt	10,109	10,490	11,859	13,082	13,334	13,890	14,399
o/w: Others	11	14	17	21	22	23	22
Short term	1,401	1,925	1,585	1,612	1,734	2,007	2,366
o/w: Banks debt	1,346	1,445	1,473	1,356	1,416	1,676	1,760
o/w: Enterprises debt	55	479	112	256	317	331	606
Foreign debt, net 3), (in% of GDP) 4)	35.9	32.4	37.0	37.6	41.4	41.6	40.2

Note: Republic of Serbia's foreign debt is calculated according to the principle of "maturing debt", which includes the amount of debt per principal and the amount of accrued interest not paid at the moment of the agreed maturity.
Source: NBS, QM
1) The foreign debt of the Republic of Serbia's public sector includes the debt of the state (which includes the debt of Kosovo and Metohija for loans concluded before the arrival of the KFOR mission, unregulated debt to Libya and clearing debt to the former Czechoslovakia), of the National Bank of Serbia, local self-government units, funds and agencies founded by the state and the debt for which the state guarantee was issued.
2) The foreign debt of the Republic of Serbia's private sector includes the debt of banks, enterprises and other sectors, for which a state guarantee has not been issued. Private sector's foreign debt does not include loans concluded before December 20, 2000 for which no payments are made (EUR 1040.5 million, of which EUR 470.8 million refers to domestic banks, and EUR 569.7 million to domestic enterprises).
3) Total foreign debt reduced by NBS foreign reserves.
4) The sum of the GDP of the observed quarter and the previous three quarterly GDP values is used.

The growth of foreign debt during the first nine months of 2022 is a consequence of private and public sector borrowing. Additional public sector borrowing in this period amounted to 1.34 billion euros. At the same time, the private sector increased its foreign debt by an additional 2.14 billion euros. The increase in the long-term debt of the private sector (growth of 2.14 billion euros) is mostly the result of additional borrowing by the economy (of 1.39 billion euros) and

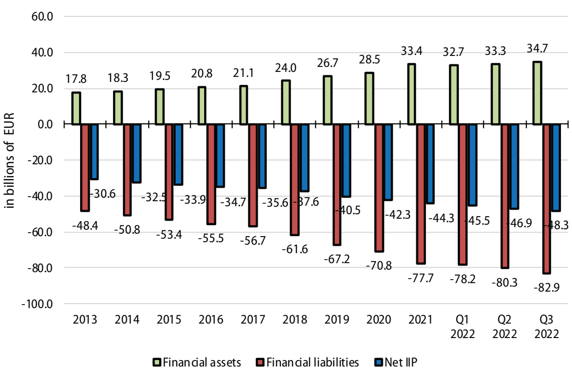
9 See section "Economic Activity" of this issue of *QM*
10 The source of data for external debt and international investment position is the NBS, and the latest available data refer to the end of September 2022.

only a small part by banks (only 72 million euros). The level of short-term debt at the end of Q3 2022 was higher by 754 million euros compared to the situation nine months earlier. Within this amount, the level of short-term debt of the economy and banks increased from the beginning of January to the end of September by 350 and 404 million euros, respectively.

In the period from June to September (in Q3), the foreign debt increased by 1.68 billion euros. The increase in public debt amounted to 753 million euros, while at the same time an increase in private debt by 928 million euros was recorded. Out of the recorded increase in external debt of the private sector, EUR 569 million was an increase based on long-term debt, while short-term debt was 359 million euros higher at the end of Q3 than three months earlier. The increase in long-term bank debt was 61 million euros, while the increase in short-term debt was 84 million euros from the end of June to the end of September (Table T4-7).

The international investment position amounted to 48.3 billion euros at the end of Q3 2022

Graph T4-8 Serbia: Net International Investment Position, in billions of euros



Source: NBS
Note: Net financial liabilities are shown as a negative value on the graph

International Investment Position

At the end of September 2022, the international investment position (IIP)[11] in Serbia amounted to 48.3 billion euros, as a net result of financial liabilities of 82.95 billion euros and financial assets of 34.68 billion euros (Graph T4-8). Compared to the end of 2021, IIP increased by 1.33 billion euros, due to an increase in assets by 1.36 billion euros and liabilities by 2.69 billion euros.

The basic items of financial liabilities side at the end of September 2022 were : FDI 48.92 billion euros, portfolio investments 8.90 billion euros and loans 21.15 billion euros. Thus, during the first nine months of 2022, an increase in FDI of 1.47 billion euros, investment portfolio of 239 million euros and loans of 692 million euros was recorded.

11 The International Investment Position of the country (IIP) includes financial assets and liabilities of international character. It represents the difference between foreign financial assets in our possession (foreign reserves, our direct and portfolio investments abroad, approved loans abroad, etc.) and foreign financial liabilities in Serbia (foreign direct and portfolio investments, debts abroad, etc.). The country is a net creditor if its claims and assets abroad are higher than foreign assets in the country and its foreign debts

5. Prices and The Exchange Rate

In Q4, inflation continued to accelerate, and the year-on-year growth of consumer prices in Serbia in December 2022 was 15.1%. Average inflation last year was almost three times higher than in 2021 and amounted to 11.9%. Almost two-thirds of last year's increase in the price of the consumer basket comes from the rise in food and energy prices, which is why Serbia does not differ from other European countries. However, there are also essential differences - the contribution of food prices to overall inflation was noticeably higher than in CEE countries, while the impact of energy on inflationary trends was largely reduced thanks to the control of gas and electricity prices. However, such a policy achieved only temporary success in suppressing inflation, while its fiscal cost was huge - around 2.4 billion euros. After the autumn price increase of electricity and gas, there was a new price increase as of January 1st this year (and another one is planned for May), which means that the inflationary pressures due to the increase in energy costs have largely been postponed until 2023. Consequently, unlike other CEE countries where inflation has generally been falling for several months, in Serbia the growth in consumer prices continued at the beginning of this year, so that year-on-year inflation jumped to 16.1% in February. As of December 2022, core inflation (measured by CPI excluding food, energy, alcohol and tobacco) has been also in double digits, and in February it was 11.1%, which is its highest value in the last ten years. The high level and rising trend of core inflation indicate that inflationary pressures in the Serbian economy are still strong, despite the fact that since Q4 there have been clear indications of their easing in the international environment. In line with our expectations, the NBS continued to tighten monetary policy by increasing the key policy rate by 25 b.p. per month (to the current 5.75%), and current trends suggest that the monetary adjustment cycle will most likely end after one or two more hikes in the key policy rate. In Q2 2023, we expect a reversal of the rising year-on-year inflation trend due to the easing of global cost pressures, the weakening of domestic demand on several grounds (more restrictive monetary policy, high inflation devaluing the sources of financing domestic consumption, etc.) and the effect of last year's high base. Inflation from December of last year to December of this year could be around 10%, while average inflation in 2023 will most likely be close to last year's level (around 12%). Thanks to the extensive interventions of the NBS, the nominal exchange rate of the dinar against the euro remained stable throughout 2022 (slight appreciation by 0.2%) despite major turbulence on the foreign exchange market. In order to prevent greater fluctuations in the exchange rate, the NBS last year net bought 1 billion EUR on the interbank foreign exchange market. A stable nominal exchange rate together with high domestic inflation caused a real appreciation of the dinar by 8.3% in the past year, which adversely affects the price competitiveness of the Serbian economy.

Prices

Strong and widespread growth in consumer prices was one of the main macroeconomic trends that marked the year 2022

Serbia ended the previous year with inflation of 15.1%, which represented the highest increase in consumer prices on an annual basis since 2005. Year-on-year inflation accelerated month by month and at the end of the year was almost twice as high as in December 2021 (Table T5-1). As a result, average inflation also jumped sharply and was almost three times higher than in 2021 – 11.9% in 2022 versus 4.1% in 2021. Along with the acceleration of overall inflation, the prices of a number of products and services increased significantly, so that by the end of 2022, the increase in consumer prices in the domestic economy became widespread. Namely, according to December data, as many as 85% of products and services that make up the average consumer basket in Serbia went up in price by more than 4.5%, i.e., from the upper limit of the NBS target interval. The highest price growth in 2022 was recorded in food and non-alcoholic beverages (23.4%), followed by services related to housing (renting apartments, utilities, electricity and heating), which rose in price by 19.3%, and equipment for the apartment and ongoing maintenance

(18.2%). When looking at the structure of last year's consumer price growth, almost two-thirds (about 65%) can be attributed to food price increases (7.3 p.p. contribution) and energy (2.6 p.p. contribution). However, the contribution of the prices of other products and services to total inflation also gradually increased - from slightly over 20% at the end of 2021 to around 35% in December last year. The fact that inflation spread to an increasing number of products during 2022 is confirmed by the movement of base inflation (measured by the consumer price index excluding food, energy, alcohol and tobacco products), which also reached the zone of double-digit growth rates. In December, base inflation was 10.1%, which is its highest value in the last ten years.

Table T5-1. Consumer price index and inflation, 2018-2023.

	Consumer Price Index				
	Base index (avg. 2006 =100)	Y-o-y growth	Cumulative index	Monthly growth	Quarterly growth
2018					
dec	195.0	2.0	2.0	0.1	-
2019					
dec	198.6	1.8	1.8	0.5	0.1
2020					
dec	201.1	1.3	1.3	0.0	-0.2
2021					
mar	204.3	1.8	1.6	0.5	1.1
jun	208.1	3.3	3.5	0.3	2.0
sep	212.1	5.7	5.5	0.8	1.5
dec	216.9	7.9	7.9	0.4	2.5
2022					
jan	218.7	8.3	0.8	0.8	-
feb	221.1	8.8	1.9	1.1	-
mar	222.9	9.1	2.8	0.8	2.4
apr	226.3	9.6	4.3	1.5	-
may	229.1	10.4	5.6	1.2	-
jun	232.8	11.9	7.3	1.6	3.8
jul	235.2	12.8	8.4	1.0	
aug	238.1	13.2	9.8	1.2	-
sep	241.7	14.0	11.4	1.5	3.9
oct	246.2	15.0	13.5	1.9	-
nov	248.6	15.1	14.6	1.0	-
dec	249.7	15.1	15.1	0.4	4.1
2023					
jan	253.2	15.8	1.4	1.4	-
feb	256.7	16.1	2.8	1.4	-

Note: Quarterly growth is the rate of inflation in the current quarter compared to the average of the previous quarter.
Source: SORS and *QM* estimate.

Last year's high inflation was largely imported, although at least a third of the increase in consumer prices in Serbia can be attributed to domestic factors

The acceleration of inflation in 2022 is a global phenomenon and a challenge that even the most economically developed countries are currently facing. World inflation is the result of the combined influence of demand- and supply-side factors. Strong monetary and fiscal expansion contributed to incomes growing faster than production, which influenced the formation of an imbalance between supply and demand. Leading central banks have conducted strong monetary expansion practically since the Great Financial Crisis, only to intensify it further with the onset of the COVID-19 pandemic. With the onset of the COVID-19 pandemic, almost all countries applied fiscal incentives that encouraged a faster growth in the incomes of citizens and economy than the growth of production, which further increased the difference between supply and demand. In the conditions of the imbalance between supply and demand, the trigger for a strong increase in prices at the world level was a series of shocks on the supply side caused first by the COVID-19 pandemic, and then by the war in Ukraine: stoppages in supply chains, the growth of transport costs, the energy crisis, the growth of international food and other raw materials prices, etc.

These global factors were inevitably reflected in domestic cost pressures and the recorded price growth during 2022 had a very pronounced import component. Their unfavorable influence on the trend of inflation in Serbia was actually somewhat muted compared to other CEE countries, primarily thanks to the price control of the main energy sources - electricity and gas. Since inflation in the CEE countries also included a strong increase in their prices, the contribution of energy to the total inflation in the Region was 2-3 times higher than in Serbia during the previous year. This is also the main reason why year-on-year inflation in December 2022 in Serbia was over 2 percentage points lower than the average in Central Europe (15.1% versus 17.2%). However, the fiscal cost of such a pricing policy on the domestic market of electricity and gas was huge - by the end of last year it had grown to 2.4 billion euros, and new costs are being planned in 2023, despite the fact that in the meantime a phased increase in energy prices has begun .

In other words, if Serbia implemented a similar pricing policy for electricity and gas as CEE countries, domestic inflation would be slightly higher than the average in the region, which suggests that there are domestic factors that contributed to the strong growth of consumer prices in 2022. A similar assessment applies to the international environment. Namely, there is already enough evidence that the record high inflation in many countries is not only the result of shocks on the supply side, but that economic policy measures also contributed to it. This applies to the monetary expansion before and during the pandemic, the excessively expansive fiscal policy since the beginning of the pandemic, but also to the delayed response of the monetary authorities due to the initially mistaken belief that the acceleration of inflation is solely the result of temporary disruptions on the supply side that central banks cannot influence.

Serbia was no exception in terms of the mix of economic policies it implemented from the point of view of their contribution to the trend of inflation in 2022. Anti-crisis fiscal measures since the beginning of the COVID-19 pandemic reached 5.4 billion euros (10.4% of GDP), which in relative terms was more than 50% in relation to comparable countries of Central and Eastern Europe. Another important difference compared to the countries of the region was the very generous and often completely indiscriminate subsidies to the population, which by the end of 2022 reached the amount of almost 2 billion euros (about 4% of GDP), which was almost entirely transferred to consumption. On the monetary policy side, the NBS started to increase the key policy rate from April 2022 – a few months after other central banks in the CEE region. Taking all that into account, we estimate that at least a third of the growth in consumer prices in 2022 in Serbia (5-6 percentage points) is the result of the inflationary effect of domestic economic policies.[1]

In Q4 2022, inflation was relatively high, but year-on-year inflation was slowing down

In Q4 2022, prices rose by 4.1% compared to the average of the previous quarter, which was the highest quarterly inflation rate in the past year (Table T5-1). On a monthly basis, prices rose the most in October (1.9%), while November and December inflation were noticeably lower, 1% and 0.4%, respectively. The slowdown of monthly inflation and the effect of the high base from 2021 contributed to the year-on-year inflation temporarily stabilizing, so that in the last two months of 2022 it remained unchanged and amounted to 15.1%. During the last three months of 2022, the average consumer basket rose in price by 3.3% (Table T5-2). More than half of this increase comes from the rise in prices of food and non-alcoholic beverages, the prices of which increased by 5.8% on average (contribution of 1.8 p.p.). Within this group, the prices of milk, cheese and

Table T5-2. Selected components of the consumer price index and contribution to inflation growth

	Share in CPI (in %)	price increase in Q4 2022.	Contribution to overall CPI increase (in p.p.)	price increase in January 2023.	Contribution to overall CPI increase (in p.p.)	price increase in February 2023.	Contribution to overall CPI increase (in p.p.)
Total	100.0	3.3	3.3	1.4	1.4	1.4	1.4
Food and non-alcoholic beverages	31.4	5.8	1.8	1.6	0.5	2.7	0.8
Food	27.8	6.0	1.7	1.7	0.5	2.8	0.8
Alcoholic beverages and tobacco	7.1	1.3	0.1	2.5	0.2	0.3	0.0
Tobacco	4.4	0.0	0.0	4.1	0.2	-1.1	0.0
Clothing and footwear	4.5	4.2	0.2	0.0	0.0	-0.6	0.0
Housing, water, electricity and other fuels	13.6	3.9	0.5	3.5	0.5	1.0	0.1
Electricity	5.1	0.0	0.0	7.1	0.4	0.0	0.0
Furniture, household equipment, routine maintenance	4.3	5.4	0.2	1.2	0.1	0.9	0.0
Health	5.5	1.0	0.1	0.2	0.0	1.2	0.1
Transport	12.6	-1.7	-0.2	-0.6	-0.1	0.8	0.1
Oil products	6.2	-5.3	-0.3	-2.3	-0.1	1.5	0.0
Communications	5.7	0.3	0.0	0.1	0.0	0.1	0.0
Other items	15.4		0.5		0.2		0.1

Source: SORS and QM estimate.

1 In the IMF working paper (Minasyan, G., E. Ozturk, M. Pinat, M. Wang, Z. Zhu, 2023. Inflation Dynamics in the Western Balkans. IMF Working Paper no. WP/23/49), it is estimated that domestic policies, which encourage demand growth, significantly influenced inflation in the countries of the Western Balkans.

eggs increased the most (16.8%), with a contribution to inflation of 0.8 percentage points. In Q4, for the first time in the last year, the prices of energy had a neutral effect on the trend of overall inflation - the contribution of the increase in the price of firewood and coal and district heating services of 0.3 p.p. was neutralized by the drop in fuel prices for passenger vehicles by 5.3% (contribution of 0.3 p.p.). However, the price growth of other products and services slightly accelerated compared to the previous quarter, making a cumulative contribution to inflation of 1.5 p.p. Observed by individual groups, the highest price increases were seen in equipment for the apartment and current maintenance (growth of 5.4%, contribution of 0.2 p.p.), clothing and footwear (growth of 4.2%, contribution of 0.2 p.p.) and some services (e.g. catering services, renting apartments, etc.).

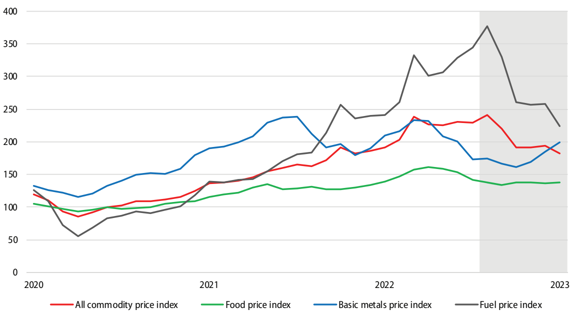
The beginning of 2023 brought a new acceleration of inflation, due to the additional increase in food prices and the January increase in electricity and gas prices

January 2023 recorded relatively high inflation of 1.4%, although this was expected due to the previously announced increase in electricity and gas prices for households. Namely, since January 1st, electricity has been more expensive on average by 8% and gas by 11%, which contributed to inflation in that month by over 0.4 p.p. The 1.6% increase in the prices of food and non-alcoholic beverages contributed to January inflation by almost 0.5 percentage points, while the increase in the price of tobacco products by 4.1% contributed by 0.2 p.p. (Table T5-2). The only significant disinflationary factor in January was the drop in fuel prices for passenger vehicles by 2.3% (contribution -0.1 p.p.) as a result of the downward trend in world oil prices from the previous few months. February inflation also amounted to 1.4% primarily due to the increase in food prices by 2.7% (contribution of 0.8 p.p.), of which the prices of fresh vegetables, bread and cereals increased the most (cumulative contribution of almost 0.6 p.p.). Observed by year-on-year, price growth within this group reached a record 24.6% with an increase in contribution to total inflation to 7.7 p.p. After temporary stabilization of interannual inflation at the end of last year, its new maximum of 16.1% was reached in February. This is slightly higher than the expectations of the NBS and central projection presented in February inflation report, which predicted that the year-on-year price increase in Q1 2023 would amount to 15.6%.

The last quarter of 2022 and the beginning of this year was marked by an easing of global inflationary pressures

After more than two years of continuous strengthening of cost pressures in the international environment, from the fall of 2022 we are seeing a reversal of this trend. The prices of raw materials on the international market, measured by the IMF's composite index, fell by about 25% in the period from September 2022 to January this year (Graph T5-3), with a particularly deep drop in the prices of energy products (on average by about 40%). World oil prices returned to the level of the period immediately before the outbreak of the war in Ukraine, which was a shock that strongly pushed them upwards from March 2022. The sharp drop in gas prices on European stock exchanges by over 60% compared to August last year was particularly important for Serbia. World food prices in January 2023 were about 15% below their maximum level in the last year, although they are still noticeably above the multi-year average from the pre-crisis period. Among the most important raw materials, only the prices of base metals recorded a jump during autumn and winter, which is mainly a consequence of the opening and recovery of the Chinese economy. Supply chain bottlenecks have also been cleared over the past year, and according to February data, the value of the Global Supply Chain Pressures Index (GSCPI) has dropped to its historical average. All of these are signals that show that the impact of cost pressures in the international environment on inflation trends has already begun to weaken.

Graph T5-3: The main price indices on world commodity markets, 2020-2023

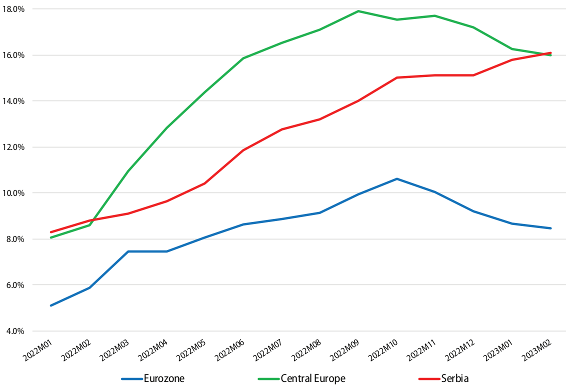


Source: IMF Primary Commodity Prices

Inflation in the international environment has not yet been brought under control, but in many countries it has started to decline in 2022

The weakening of cost pressures on the supply side, as well as the effects of the previous tightening of monetary policy on easing inflationary pressures on the demand side, contributed to inflation being on a downward path in many countries in 2022.

Grafikon T5-4. Year-on-year inflation in the Eurozone, Central Europe and Serbia



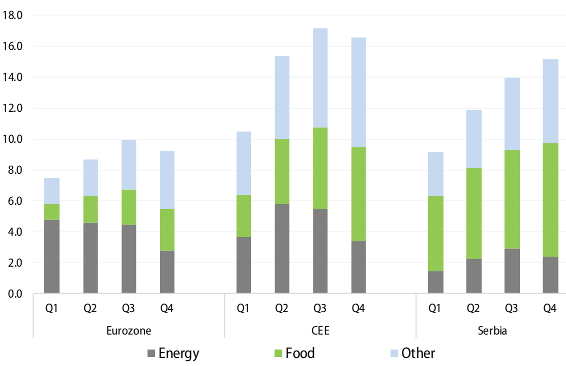
Source: Eurostat and QM estimate.
Note: Central Europe does not include the three Baltic countries (Estonia, Latvia and Lithuania) and therefore represents a narrower set of countries compared to CEE.

In the US, inflation reached a record 9.1% in June last year (the highest level since the beginning of the 1980s), but since then it has been constantly decreasing to 6%, which was its amount in February 2023. In the Eurozone, inflation reached its maximum a little later - in October 2022, it was 10.6% (Graph T5-4) which was the highest level since the establishment of the monetary union. In the next few months, year-on-year inflation in the EC decreased and, according to the latest data, amounts to 8.5%. In the countries of Central Europe, the growth of consumer prices was more pronounced than in the rest of the EU, and there are quite large differences when looking at individual countries. For example. in Hungary, annual inflation is currently above 25%, while in Slovenia it is below 10% and in Croatia it is around 12%. However, if we look at the average of the countries in the region, we first see a clear tendency of inflation acceleration until September 2022, when it reached a maximum of 18%, and then a slight but steady trend of its slowdown to the level of 16% in February this year. As can be seen in Graph T5-4, immediately after the outbreak of the war in Ukraine, inflation in Central Europe accelerated significantly more than in Serbia and was higher throughout the last year, but in the first two months of 2023, domestic inflation reached the average of the region.

The acceleration of inflation in Serbia was delayed compared to the CEE countries due to the delayed increase in energy prices, but that is why its slowdown will begin several months later.

As can be seen in Graph T5-5, the contribution of food and energy prices to overall inflation in 2022 was quite high across Europe, amounting to around 70%. However, in Serbia, two important differences can be observed in the structure of last year's price growth compared to other European countries. First of all, the contribution of energy prices to total inflation in the Eurozone and CEE in the first half of 2022 was 2-3 times higher than in Serbia. The reason is that the retail prices of electricity and gas in European countries somewhat followed the strong growth of stock market prices, while in Serbia they remained frozen at the pre-crisis level. Stabilization in the European energy market enabled a gradual decline in retail electricity and gas prices, which is seen as a rather sharp reduction in the contribution of energy to overall inflation in the Eurozone and CEE in Q4. In Serbia, we have the opposite situation - the cycle of price increases for these energy products started in Q3, continued in January, and a new price increase was announced as of May 2023. Therefore, the control of gas and electricity prices eased domestic inflationary pressures in 2022, but only temporarily, because their delayed price increase will generate cost pressures at least until the second quarter of the current year (unlike other CEE countries). As a result, it is expected that the slowdown in year-on-year inflation in Serbia in 2023 will start later and be slower than in the countries of the region. Another specific feature of inflation in Serbia is the significantly higher contribution of food prices compared to the Eurozone and CEE. This is primarily a consequence of the much larger share of food in the average consumer basket, which in Serbia amounts to over 30%, while in the Eurozone food participates with around 16% and in CEE with around 23%.

Graph T5-5: Contributions to inflation in the Eurozone, CEE and Serbia, Q1 2022 - Q4 2022

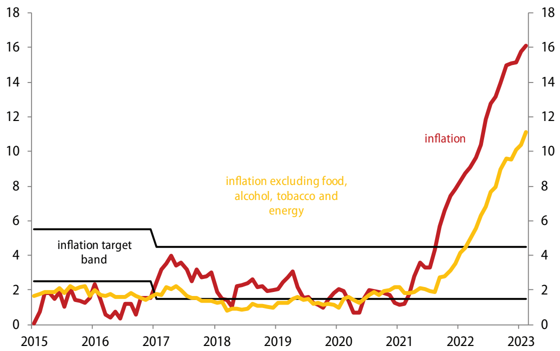


Source: Eurostat, SORS and QM estimate.

During Q4, core inflation moved into the zone of double-digit growth rates, and in February 2023 it amounted to 11.1%

The common pattern of last year's inflation in all European countries is a constant increase in the contribution of prices of other products to total inflation (Graph T5-5). Serbia was no exception either - core inflation (measured by the consumer price index excluding food, energy, alcohol and tobacco) followed the acceleration of year-on-year inflation and, according to data for February 2023, reached a high 11.1% (Graph T5-6). The contribution of prices included in the calculation of core inflation to the total inflation increased from less than 2 p.p. in January 2022 to 5.2 p.p. in February 2023. The value of this indicator of inflationary pressures strength in Serbia is still somewhat lower than in the CEE countries (close to 13%), but this difference has been decreasing in the last few months. The high level and rising trend of core inflation indicate the presence of strong inflationary pressures in the Serbian economy, but also that there are no clear signs of their easing yet (in contrast to the Czech Republic and the Baltic countries, where core inflation is already on a downward trend). The delay in core inflation in Serbia compared to countries in the region can be partly linked to the control of electricity and gas prices for companies. This eased the cost pressures in the domestic economy last year, but since the correction of the prices of these energy sources has started in the meantime, inflationary pressures due to the increase in energy costs will be felt in 2023. By maintaining a stable exchange rate of the dinar against the euro, the NBS also contributed to the easing of inflationary pressures, because this limited a spillover of high import inflation to the domestic market. When conducting monetary policy, central banks pay the most attention to the movement of core inflation, due to the increased volatility of food and energy prices - often because of supply-side shocks that the monetary authorities cannot influence much. However, in Serbia, the high price growth of food products over the past year has a proportionately greater influence on the creation of inflationary expectations due to their greater weighting in the consumer basket compared to CEE countries.

Graph T5-6. Year-on-year rate, underlying inflation and NBS target corridor, 2015-23

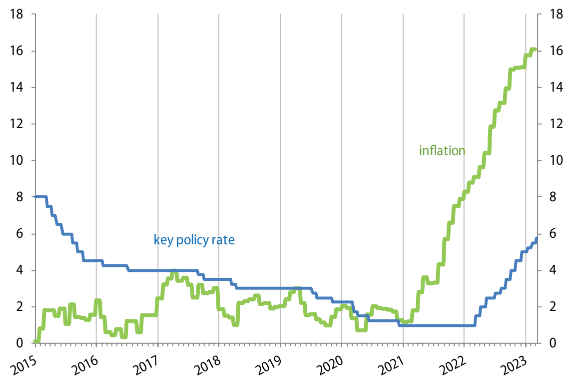


Source: Eurostat, SORS and QM estimate.

The NBS continued to increase the key policy rate in 2023 by 25 basis points per month, and in March 2023 it amounts to 5.75%

In the first months of 2023, the NBS continued to tighten the monetary policy, and in accordance with the expectations presented in the previous issue of QM, the trend of raising the key policy rate was reduced from 50 to 25 basis points per month. The cycle of increasing the restrictiveness of monetary policy has now lasted for a full year, during which the key policy rate was increased by 4.75 percentage points - from 1% in April 2022 to the current 5.75% (Graph T5-7). At the end of last year, there were expectations that the NBS could end raising the key policy rate during Q1 2023, since a reversal of the rising trend of annual inflation was predicted at the beginning of Q2. However, now it is no longer so certain and we do not rule out the possibility of one or two more increases in key policy rate by 25 basis points. This is supported by the fact that the year-on-year inflation slowdown in Serbia could be somewhat slower than expected, as well as the fact that core inflation still shows no signs of slowing down, which would clearly indicate a weakening of inflationary pressures in domestic economy. A similar assessment applies to monetary policy in international environment, with the exception of central banks in CEE, which most likely have already ended the cycle of monetary policy tightening. Namely, despite the growing concern about problems in certain banks in the US and Europe, the

Graph T5-7. NBS key policy rate and year-on-year inflation rate, in %, 2015-23



Source: NBS

ECB again increased the key policy rate by 50 basis points in March, and a similar decision is expected from the FED (albeit, probably by 25 basis points). Currently, the prevailing view is that persistently high inflation is a much greater risk to the world economy than individual problems in the financial sector, that is, that leading central banks should continue to tighten financial conditions until inflation is firmly under control.

Year-on-year inflation will begin to gradually slow down from Q2 2023, and we expect it be around 10% at the end of the year

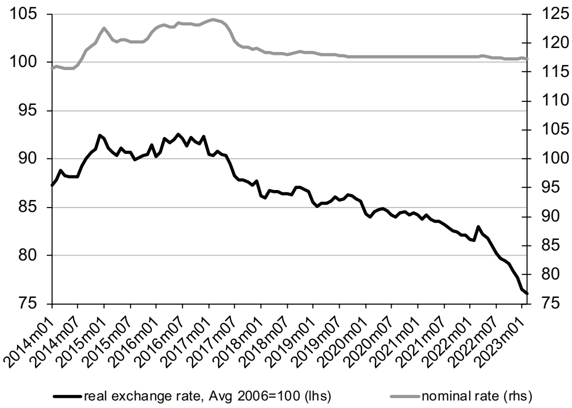
Year-on-year inflation should reach its maximum in March (about 16.5%), after which we expect its gradual slowdown in Q2 and in the second half of 2023. The declining trend of overall inflation will be contributed by the weakening of global cost pressures and lower import inflation, the fact that high inflation has already significantly reduced the real value of income finances domestic demand (salaries and pensions), as well as an increase in the restrictiveness of monetary policy, which will also contribute to the weakening of pressures from the demand side and favorably affect inflationary expectations in the Serbian economy. On the other hand, there are cost pressures whose effect in Serbia has been postponed from 2022 to this year (the increase in energy prices was mentioned, some other price increases such as postal services, etc. were announced) which will act in the opposite direction and partially neutralize the effect of last year's high bases. The movement of year-on-year inflation will largely depend on the upcoming agricultural season, as prices of fruit, vegetables and other food products were unusually high in 2022 due to the drought. A good agricultural season could therefore be a significant disinflationary factor that would accelerate the decline in year-on-year inflation by the end of the year. According to the central NBS projection from the February Inflation Report, inflation should drop to 7.5% by the end of 2023. However, there are reasons why this forecast could turn out to be too optimistic. First of all, the peak point from which the year-on-year inflation will start to slow down will be by about 1 p.p. above the NBS estimate at the time. We also expect that the trend of its slowdown will be milder, because inflationary pressures in the domestic environment are apparently somewhat stronger than the assumptions on which the official February inflation projection was based. According to our estimates, year-on-year inflation should definitely return to the single-digit zone in Q4, closer to 10% in December 2023. This will also push average inflation in 2023 higher compared to the initial projections of the NBS, and we estimate that it will remain close to last year's level (12%).

The Exchange Rate

Despite great turbulence on the foreign exchange market since the beginning of 2022, the exchange rate of the dinar against the euro has remained stable thanks to extensive interventions by the NBS

The beginning of 2022 was marked by strong depreciation pressures on the dinar due to the high demand for foreign exchange to finance the import of expensive energy products, and then due to the withdrawal of foreign investors immediately after the outbreak of the war in Ukraine. However, the situation has completely turned around since May last year, when appreciation pressures on the domestic currency began to prevail, and this is a trend that is still ongoing. In order to prevent major fluctuations in the exchange rate, the NBS was very active on the interbank foreign exchange market (IFEM) - first on the selling side of foreign exchange in Q1 2022, and then mainly as a buyer of foreign exchange. Looking at the whole year, the NBS bought 1 billion euros net in order to prevent a significant strengthening of the dinar against the euro. During 2022, the dinar nominally strengthened against the euro by 0.2%, from 117.6 to 117.3 dinars per euro, and it maintained the same value in the first two months of 2023 (Graph T5-8). Among the more important sources of the increase in

Graph T5-8. Nominal and real dinar/euro exchange rate, monthly average, 2014-2023.



Source: NBS, SORS, Eurostat and *QM* estimate.
Note: Increase represents depreciation of the excange rate.

supply of foreign exchange and consequently appreciation pressures on the dinar in the past year, we single out the record-breaking inflow of FDI (4.4 billion EUR), and in the past few months we have also recorded significant state borrowing abroad (a loan from the UAE of 1 billion USD, approved funds within the framework of the credit arrangement with the IMF and the issuance of two government bonds worth 1.75 billion dollars). When compared to the US dollar, the dinar weakened by 6% last year, as a result of strengthening of the US currency against the euro. This adversely affects the level of public debt denominated in dollars (currently around 14% of the total debt of the general government), and the import of some goods that are traditionally paid for in dollars (such as oil and gas) becomes more expensive.

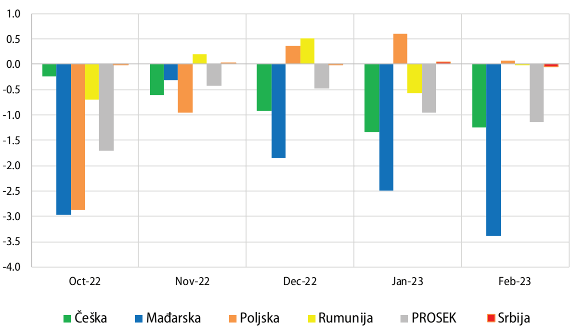
The real exchange rate of the dinar kept strengthening, as a consequence of the stable nominal exchange rate against the euro and high domestic inflation

Maintaining the nominal exchange rate of the dinar against the euro is currently a good policy in many ways – it limits the spillover of high import inflation to the domestic market, has a favorable effect on inflationary expectations, and is also important for the stability of the entire financial system in highly euroized countries such as Serbia. However, such a policy also has a less favorable consequence in conditions of very high domestic inflation, which is reflected in a powerful real dinar strengthening in relation to the euro. As can be seen in Graph T5-8, that trend has become particularly pronounced since March 2022 (which coincides with the acceleration of domestic inflation), and as of February this year, the dinar has already strengthened in real terms by 8.3%. Bearing in mind the short-term projections of inflation in Serbia and the Eurozone, as well as the determination of the NBS to keep the dinar exchange rate stable, the trend of real appreciation of the domestic currency will last for the next few quarters. In the medium term, this will have a negative impact on the price competitiveness of the export part of Serbian economy.

In Q4 2022 and at the beginning of this year, appreciation pressures also prevailed in other CEE countries with a similar exchange rate regime

The currencies of all CEE countries with a similar exchange rate regime strengthened significantly in the last quarter of 2022 and first two months of this year (Graph T5-9). There are several common factors that explain such a trend in foreign exchange markets in the region, the most important of which are the tightening of monetary policy in the previous period, drop in energy prices and improvement in the balance of payments. Over the past five months, the Hungarian forint has strengthened nominally against the euro the most (10.5%), followed by the Czech crown (4.3%) and the Polish zloty (2.8%). The Romanian lev strengthened slightly against the euro (0.5%), mainly thanks to more extensive interventions by the Romanian central bank on the foreign exchange market. During the current episode of high inflation, most central banks in CEE increased the volume of interventions in foreign exchange markets, albeit to a lesser extent than the NBS does. As a result, for several years now (as shown in Graph T5-9), the dinar exchange rate fluctuations against the euro have been incomparably less pronounced than in other currencies in the region.

Graph T5-9. Nominal exchange rate change (in %) in selected CEE countries



Source: Eurostat
Note: Increase represents depreciation of the exchange rate.

6. Fiscal Trends and Policy

After the slow-down as of the middle of the year, in Q4 2022 there was a real year-on-year decrease in public revenues by 3.8%, and the (seasonally adjusted) decrease was also achieved compared to the previous quarter, which indicates that the positive impact of inflation on tax collection has been mainly exhausted. The decline in income was a consequence of the decline in private activities, income, and consumption, as well as a temporary reduction in the excise duty rate on petroleum products and a real devaluation of specific activity rates. At the same time, public spending achieved a slight year-on-year growth in Q4 (by 1.1%), primarily due to recording the aid payments to public enterprises paid out in the previous part of the year as budget expenditures in November and December - after rebalancing, while all current and capital spending continued a real year-on-year decline, mainly due to inflation. That is why a large fiscal deficit of 13.5% of quarterly GDP was reported in Q4. At the level of the entire 2022, public revenues increased slightly in real terms (by 1.4%), due to strong growth in the first half of the year based on high inflation and solid economic dynamics, and a noticeable slowdown in the second half of the year. In 2022, public spending achieved a slight real decline (by 0.8%), due to a real decline in both current and capital spending due to inflation, while spending on activated guarantees and budget loans increased strongly due to problems in the operations of public enterprises from the energy sector. Capital spending amounted to 7.2% of GDP in 2022, which was a solid result, although slightly lower than planned. In 2022, a fiscal deficit of 3.1% of GDP was realised, which, in accordance with the forecasts presented in the previous issue of the Quarterly Monitor, was smaller than planned, primarily due to better tax collection in the first three quarters. However, only a small part of the additional tax revenues generated due to inflation was used to reduce the deficit, and a larger part was used to help public companies from the energy sector. The realized fiscal deficit in 2022 and the planned deficit in 2023 in Serbia are higher compared to the average of EU countries and Central and Eastern Europe. At the end of 2022, the public debt amounted to EUR 33.3 billion (55.1% of GDP), which was EUR 3.2 billion more than at the end of 2021. The high growth of the public debt in absolute terms was partly due to the financing of the deficit, and partly due to borrowing in advance to finance future obligations. Despite the strong growth of debt in absolute terms, the ratio of debt to GDP is declining, due to high inflation and the unchanged exchange rate of the dinar against the euro. In January, the public debt increased by over one billion euros due to the issuing of Eurobonds.

General Fiscal Trends

In Q4, there was a significant real drop in public revenues, while public spending rose slightly

After the slowdown of year-on-year growth in Q3, public revenues recorded a significant year-on-year decline (by 3.8%) in Q4 2022. A real decline in (seasonally adjusted) public revenues in Q4 was also achieved compared to Q3 (by 1.7%). The decline in income at the end of 2022 is a consequence of the exhaustion of the positive effects of inflation on the collection of tax revenues, but also the slowdown of economic activity.

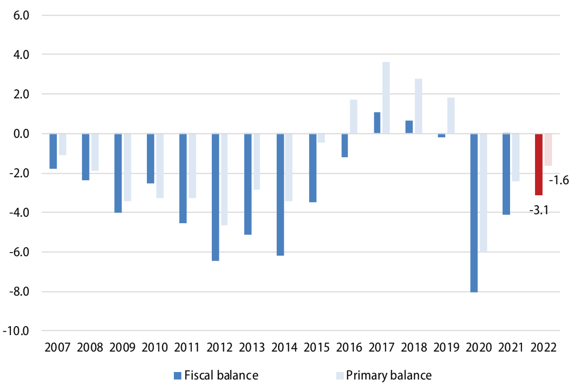
Public spending in Q4 recorded a slight year-on-year real growth (by 1.1%), while compared to Q3, seasonally adjusted public spending achieved a large real growth (by over 17%) in Q4. This was primarily due to a large increase in budget loans, which was the consequence of including spending on aid to public enterprises from previous periods in public spending in Q4. After the budget rebalancing, these expenditures were transferred from the extra-budgetary position (Purchase of Financial Assets) to the position of public spending - budget loans.

At the level of the entire 2022, public revenue slightly increased, while public spending slightly decreased

At the level of the entire 2022, public revenues achieved a slight year-on-year growth (by 1.4%), while public spending decreased slightly in real terms (by 0.8%). As a result, public consumption in Serbia decreased slightly in relative terms in 2022 (by 0.8 pp of GDP), but it was still at a high level compared to other European countries. Public consumption in Serbia in 2022 amounted to 46.6% of GDP, which was higher than the average of the EU-27 (45.7% of GDP), the countries of Central and Eastern Europe (43.3% of GDP a), and the Western Balkans (37.4% of GDP). Of the countries of Central and Eastern Europe and the Western Balkans, only Croatia and Hungary had higher public spending than Serbia.

In European terms, public spending in Serbia is still relatively high

Graph T6-1. Serbia: Consolidated Fiscal Balance and Primary Balance (% GDP)



Source: *QM* calculations using MFIN data

In Q4, a large fiscal deficit of RSD 265.2 billion was reported (i.e. 13.5% of GDP)

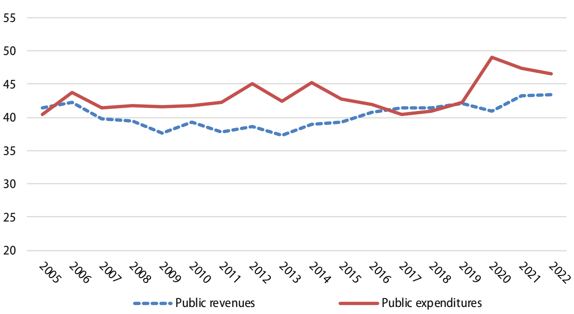
In Q4, a consolidated fiscal deficit was realised in the amount of RSD 265.2 billion (13.5% of quarterly GDP). More than half of the deficit realised in Q4 was a consequence of recording spending on state aid to public enterprises from the energy sector realised during 2022, as public spending in November and December 2022 - after the budget rebalancing. In addition, the high deficit in the last quarter of 2022 was influenced by seasonal factors (implementation of the budget at the end of the year), but also by the slowdown on the revenue side.

In the entire 2022, deficit of RSD 221.2 billion was realised (3.1% of GDP)

At the level of the entire 2022, a consolidated fiscal deficit of RSD 221.2 billion was achieved (3.1% of GDP), which is less than the deficit planned by rebalancing, while the primary deficit[1] was moderate and amounted to 1.6% of GDP. However, it should be noted that the year 2022 was the third year in a row that Serbia was leading a relatively large fiscal deficit policy, which is reflected in the strong growth of the absolute level of public debt.

Similar trends continued in January – revenue stagnated in real terms, while spending declined

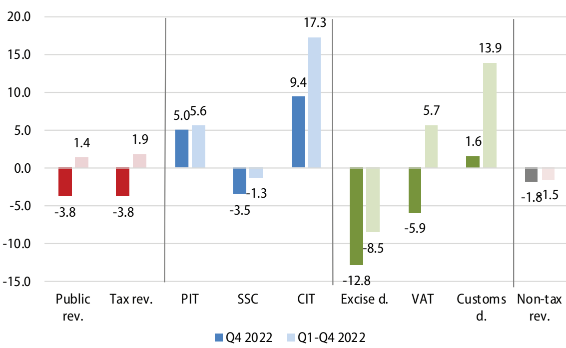
Graph T6-2. Serbia: Consolidated Public Revenue and Public Spending (% GDP)



Source: *QM* calculations using MFIN data

Similar trends continued in January 2023. Public revenues were almost unchanged in real terms compared to the same month in 2022, while public spending was significantly lower in real terms (by 5%) compared to January of the previous year. The significant year-on-year drop in public spending in January was influenced by a large real drop in wage spending (by 13%), because the nominal wage increase refers to the January wage, which is paid in February. Due to the described income and spending dynamics, a consolidated surplus of RSD 1.2 billion was realised in January.

Graph T6-3. Serbia: Year-On-Year Real Growth Rate of Public Revenue in 2022 (%)



Source: *QM* calculations using MFIN data

Public Revenue Dynamic

The decline in public revenues in Q4 was a consequence of the decline in revenues from consumption taxes (VAT and excise), social contributions, as well as non-tax revenues, while revenues from other tax forms achieved growth. Observed at the level of the entire 2022, public revenues recorded a slight year-on-year growth as a net effect of a strong decline in excise, profit tax, and non-tax revenues, and an increase in revenues on other grounds.

1 Deficit excluding the spending on interests.

Tax Revenue

Tax revenue significantly declined in Q4...

After the slowing growth in the previous quarter, tax revenue recorded a moderate year-on-year decline in Q4 2022. Compared to Q3 2022, seasonally adjusted tax revenue decreased slightly in real terms (by 0.8%).

... due to the decrease in revenues from excise taxes, VAT and social contributions

The decline in tax revenues in Q4 was largely the result of a strong year-on-year decrease in excise and VAT revenues, and a strong slowdown in the growth of customs revenues. This was a consequence of the end of the positive impact of inflation on tax revenues, the temporary reduction of excise rates on oil derivatives in order to stabilise prices, and the devaluation of specific excise rates due to high inflation, and probably the slowdown of economic activity, i.e. decline in the real value of consumption, due to the devaluation of incomes.

The positive effect of inflation on tax revenues has been exhausted...

... and the slowdown in economic activity is beginning to negatively affect tax collection

The drop in tax revenues in Q4 was also influenced by a significant drop in income from contributions for mandatory social insurance, which, in addition to the reduction in the contribution rate, was also influenced by the high comparison base, since in 2021, there was a settlement of transferred obligations on this basis from the first year of the pandemic. However, income from contributions in Q4 achieved a noticeable real seasonal drop compared to Q3 of that year, which indicates that the dynamic of income from contributions is also affected by current factors in the labour market, related to the slowdown in economic activity. On the other hand, income from personal income tax continued a solid year-on-year real growth.

Income from corporate income tax continued strong year-on-year growth in Q4, as well as real seasonally adjusted growth compared to Q3, which probably reflected on the solid results in terms of economic profitability in the previous period.

In 2022, tax revenue slightly increased...

Observed at the level of the entire 2022, tax revenues increased moderately, primarily due to strong growth in the first half of the year, fueled by high inflation and solid economic dynamics, and first a mild and then sharper slowdown in the collection of tax revenues in the rest of the year.

... due to high inflation in most of the year and solid dynamic of the economy in the first half of the year

In 2022, revenue growth was achieved based on all tax forms, except for revenue from excise taxes and contributions for mandatory social insurance. The growth of tax revenues on almost all grounds was influenced by high inflation, and especially high growth in the prices of imported goods, while the decline in excise revenues was a consequence of the reduction of excise rates on petroleum products, the devaluation of specific rates, and possibly a drop in demand due to the rise in prices of excise products. The negative dynamic of income from contributions was probably primarily a consequence of the effect of a high base, as previously discussed.

Due to inflation, tax revenue in 2022 was higher than planned by RSD 230 billion

In 2022, tax revenues were collected in an amount higher than planned by about RSD 230 billion, primarily because the actual inflation rate in that year was significantly higher than planned at the time of preparing the 2022 budget.

In January, tax revenue recorded a slight real growth

In January, tax revenues rose in real terms by only 0.6% compared to the same month in 2022, primarily due to a strong drop in income tax and social contributions, while consumption tax revenues had a solid increase.

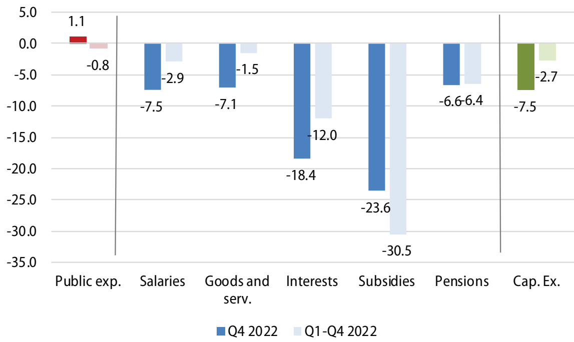
Non-Tax Revenue

In Q4, non-tax revenues recorded a slight year-on-year decline in real terms, and a similar result was achieved on the level of the entire year. It still represents a smaller reduction of this type of public revenue compared to the initial plans from the 2022 Fiscal Strategy.

Public Spending Dynamic

After the decline in the previous period, in Q4, public spending recorded a slight year-on-year increase, while compared to the previous quarter, a strong real seasonally adjusted growth was achieved. This was primarily due to a jump in budget loans, since spending on state aid to public

Graph T6-4. Serbia: Public Spending Year-On-Year Real Growth Rates in 2022 (%)



Source: QM calculations using MFIN data

enterprises from the energy sector, realised in the previous part of the year, was recorded in that position in November and December.

At the level of the entire year, public spending achieved a slight year-on-year decline in real terms, which was a net consequence of the real devaluation of current and capital spending due to inflation on the one hand and strong growth in budget loans on the other.

Current Spending

Current spending in Q4 had a significant real decline, primarily due to the inflation

In Q4 2022, current public spending experienced a large year-on-year real decline (by 13.5%), with a real decline in all types of current spending. The real drop in current spending in Q4 was predominantly influenced by rising inflation and the fact that most categories of current spending are limited by budgets and financial plans in a nominal amount.

Spending on wages and pensions is declining in real terms due to the acceleration of inflation

Despite the significant increase in wages of public sector employees since January of the current year, wage spending has continued to decline year-on-year in real terms, which was a consequence of the acceleration of inflation. Similarly, public spending on pensions continued the negative trend from the previous quarters and was further strengthened in Q4, which was also a consequence of the real devaluation of pensions due to inflation, as well as the decrease in the number of retirees.

The currency structure of the debt, the almost fixed exchange rate, and high inflation also had an impact on the sharp decline in spending on interests

Spending on goods and services also recorded a strong year-on-year decline in Q4, which can also be predominantly attributed to high inflation, a significant share of spending on goods and services the price of which is controlled (e.g. electricity, gas, heating), as well as long-term contracts for the procurement of goods and services in the public sector. In Q4, spending on interests also experienced a large decline in real terms, which was a consequence of high inflation and the almost fixed exchange rate of the dinar against the euro, which, in conditions where more than four-fifths of Serbia's public debt is denominated in dinars or euros, affects a strong decline in this type of spending.

Spending on subsidies in Q4 achieved the largest real year-on-year decrease compared to all other categories of current public spending, which was probably influenced not only by inflation but by the high comparison base as well, i.e. payment of larger amounts of subsidies in the same period in 2021.

Strong growth of budget loans and activated guarantees - due to energy sector issues

On the other hand, spending on activated guarantees in Q4 2022 was almost three times higher than in the same period of 2021, while spending on budget loans increased by 291% compared to Q4 2021. The strong growth of both mentioned positions was a consequence of problems in public enterprises in the energy sector. In the previous year, the state repeatedly issued guarantees for the borrowing of these companies, which, due to financial problems, are unable to finance their own due obligations. This led to the activation of certain guarantees. On the other hand, the direct financial aid that was paid to these enterprises in the previous part of the year and recorded as an off-budget item - purchase of financial assets, was shown as a budget expense based on budget loans after the budget was rebalanced.

In Q3, the trend started in Q2 continued. The trend referred to the growth of spending on activated budget guarantees, which increased again (by 234.4%) compared to the same period last year, which may have been a consequence of the dynamic of maturing obligations under guarantees issued in the previous years, as well as the activation of guarantees for recent loans to public and state enterprises.

In 2022, all current spending decreased in real terms - primarily due to thedevaluation by inflation

At the level of the entire 2022, all current spending achieved a slight year-on-year real decline, which was a consequence of the influence of similar factors that affected its dynamic in Q4 as well - primarily high inflation. Since spending on wages and pensions make up 40% of consolidated public spending, their significant real devaluation due to high inflation had a dominant effect on the trends in total current spending. Consequently, in 2022, public spending on wages declined in relative terms to 9.7% of GDP, while spending on pensions dropped to 9% of GDP.

In January, current spending had a strong decline in real terms

In January, current spending recorded a large real year-on-year decrease (by almost 12%), due to the devaluation of wages of public sector employees, since the nominal wage increase was applied to January wages which were paid in February, as well as a strong decrease in spending on goods and services. Due to the earlier increase in pensions, at the end of 2022, the real decrease in spending on pensions in January was somewhat milder and amounted to 1.3%. Since in the coming months, wages will be nominally increased by 12.5%, and goods and services will be procured at new prices, it is to be expected that the impact of inflation on the real decline in public spending will be less and less in the coming period.

Capital Spending

Capital spending in Q4 had a moderate year-on-year decline

Capital spending in Q4 2022 was 7.5% lower in real terms compared to the same period last year, which, in addition to inflation, was probably influenced by weaker dynamics in the implementation of some projects, and possibly the creation of delays due to worsening financing conditions. However, compared to Q3, when capital spending experienced a strong decline, in Q4 it rose strongly (by 12.4%) in real, seasonally adjusted terms. In January 2023, capital spending continued their year-on-year real decline, but it was slightly milder than in Q4 and amounted to 1.9%.

In 2022, capital spending amounted to 7.2% of GDP

At the level of the entire 2022, capital spending was in real terms lower by 2.7% compared to 2021, which was a consequence of the influence of the mentioned factors that also affected its dynamic in Q4. Nevertheless, the overall observed consolidated capital spending amounted to 7.2% of GDP in 2022, which can be considered a solid result, although it was 0.3% of GDP less than planned. High capital spending in the long term represents a necessary condition for a significant step forward in the development of infrastructure. In order for this to have a wider positive impact on economic growth and social development, it is necessary that the selection of projects be carried out on a methodologically based assessment of profitability, and that the contracting and implementation are performed in an inclusive and transparent manner.

General Fiscal Framework

Fiscal deficit in 2022 was slightly smaller than planned...

In accordance with the predictions in the previous issue of the Quarterly Monitor, the fiscal deficit in 2022 was slightly smaller than planned, primarily due to higher collection of tax revenues.

... due to high collection of tax revenue brought about by the inflation...

... but from a broader perspective, the fiscal deficit is still relatively high

In 2022, primarily due to inflation, tax revenues were collected in an amount higher than planned by about 3% of GDP. However, the opportunity to use better tax collection to a greater extent for a more significant reduction of the fiscal deficit was missed. Only one-third of the additional tax revenue was used to reduce the deficit, while the rest was spent on covering the costs of public enterprises from the energy sector, caused by internal inefficiencies and global turbulence, as well as for occasional payments of flat-rate benefits to certain social groups (retirees, young people, etc.), which were not based on checking the property and income status of the recipients.

Although the deficit in 2022 was smaller than in the previous year, 2022 was the third year in a row that Serbia has had a relatively high fiscal deficit. On average, in the previous three years, the fiscal deficit in Serbia amounted to almost 5% of GDP per year, which was higher than the average of the countries of Central and Eastern Europe and the Western Balkans. Unlike developed European countries, which in 2023 will halve the fiscal deficit compared to the average amount in the previous three years, in the countries of Central and Eastern Europe, and the Western Balkans, the deficit remained at a relatively high level of around 3% of GDP. The planned fiscal deficit for 2023 in Serbia of 3.3% of GDP is higher not only compared to the average of the EU countries, but also of the countries of Central and Eastern Europe and the Western Balkans.

In conditions of pronounced geopolitical uncertainties, rising interest rates, and a level of public debt that is close to the limit after which its impact on economic growth could be negative, it is recommended to conduct a long-term deficit policy, except in recessionary periods when it is economically justified to act countercyclically with expansive fiscal policy measures. In this way, in addition to reducing the exposure to risks associated with securing financing, the effect of crowding out the expected growth of interest expenses on other productive expenses or on reducing the fiscal space for further lowering of taxes and labour contributions would be reduced.

Public Debt

Public debt at the end of 2022 was EUR 33.3 billion (55.1% of GDP)

At the end of Q4 2022, the public debt of Serbia amounted to EUR 33.3 billion (55.1% of GDP), which was about EUR 900 million more than at the end of Q3, and almost EUR 3.2 billion more than at the beginning of 2022, while in the previous three years cumulative public debt increased by around EUR 9.4 billion.

The growth of the public debt in 2022 (by EUR 3.2 billion) was in absolute terms significantly higher than the fiscal deficit realised in that period (EUR 1.9 billion), which was a consequence of the state's advance borrowing to finance future obligations. This was also indicated by the high level of state deposits, which at the end of 2022 amounted to around EUR 5.3 billion, which was about EUR 900 million more than at the end of 2021. Government advance borrowing can be explained by an anticipated increase in the market and non-market risks, associated with a general increase in interest rates due to the tightening of monetary policy, as well as a possible increase in geopolitical risks, which may lead to additional complications in the country's position.

In January, the public debt increased by over EUR 1 billion and amounted to 56.9% of GDP

During January 2023, the public debt increased by over one billion euros, based on the issue of Eurobonds, for the purpose of financing the deficit and paying off existing obligations due in the following period. This is about the issue of five-year bonds in the amount of USD 750 million with an interest rate of 6.25% and ten-year bonds worth one billion dollars with an interest rate of 6.5%. Despite the strong growth of the absolute level of public debt in January, according to the data of the Ministry of Finance, public debt decreased in real terms during January by 4.9 percentage points of GDP (to 50.2% of GDP). This was a consequence of the methodology for calculating the relative level of debt by the Ministry of Finance - the debt in January was divided by the estimated level of GDP in 2023. Considering that the amount of public debt is a certain variable and that the expected GDP in the following period is an uncertain variable, the described approach can be considered methodologically inadequate, while it would be methodologically correct to compare the current level of debt with the GDP achieved in four previous quarters. In that case, the public debt at the end of January would amount to 56.9% of GDP.

In 2022, public debt increased by EUR 3.2 billion

Most of the increase in public debt in 2022 was the result of direct borrowing by the state (by over EUR 3 billion), while indirect debt, based on the provision of state guarantees for borrowing by public and state-owned enterprises, increased by around EUR 160 million. Despite the problems in the operations of public enterprises from the energy sector, the growth of indirect debt was not higher, because the state paid aid to those companies primarily through subsidies, while in a smaller number of cases, the aid was realised in the form of state guarantees for their borrowing on the market. The growth of public debt in Q4 was lower than the fiscal deficit in that period because part of the deficit in that period was financed from reserves formed in the previous period through borrowing. At the level of the entire 2022, the growth of the public debt was significantly higher than the fiscal deficit, primarily due to the state's advance borrowing, for the purposes of financing obligations that will fall due in 2023 as well.

Due to the depreciation of the dinar against the dollar, the public debt in 2022 increased by around EUR 240 million

In 2022, the exchange rate of the dinar against the euro was nominally almost unchanged, while in relation to the US dollar, the dinar depreciated nominally by 6%. Given that the debt denominated in US dollars accounts for slightly less than one-eighth of Serbia's total public debt, the depreciation of the dinar against the dollar in 2022 affected the debt growth by about EUR 240 million.[2]

Table T6-5. Serbia: Public Debt[1] 2000-2022 (billions of EUR)

	2000	2008	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022
I. Total direct debt	**14.2**	**7.9**	**15.1**	**17.3**	**20.2**	**22.4**	**22.7**	**21.4**	**21.5**	**22.5**	**25.2**	**28.8**	**29.0**	**29.6**	**30.8**	**31.8**
Domestic debt	4.1	3.2	6.5	7.0	8.2	9.1	8.8	9.1	9.4	9.8	11.2	11.3	10.7	10.8	11.2	11.3
Foreign debt	10.1	4.7	8.6	10.2	12.0	13.4	13.9	12.4	12.1	12.6	14.0	17.4	18.2	18.8	19.6	20.5
II. Indirect debt	**-**	**0.9**	**2.6**	**2.8**	**2.5**	**2.4**	**2.1**	**1.8**	**1.5**	**1.5**	**1.4**	**1.4**	**1.6**	**1.7**	**1.6**	**1.5**
III. Total debt (I+II)	**14.2**	**8.8**	**17.7**	**20.1**	**22.8**	**24.8**	**24.8**	**23.2**	**23.0**	**23.9**	**26.7**	**30.1**	**30.6**	**31.3**	**32.4**	**33.3**
Public debt / GDP (QM)[3]	**169.3%**	**28.3%**	**56.1%**	**55.9%**	**66.2%**	**70.0%**	**68.0%**	**57.8%**	**53.7%**	**52.0%**	**57.0%**	**56.5%**	**56.0%**	**55.3%**	**55.4%**	**55.1%**

Source: *QM* calculations using MFIN data

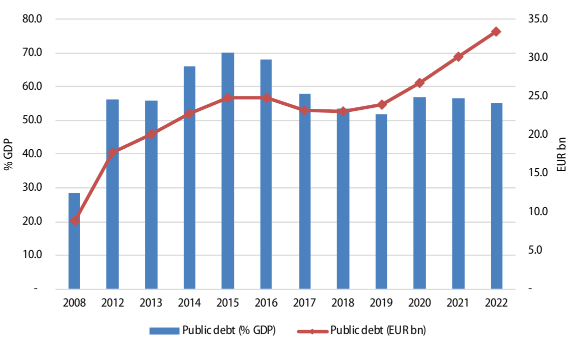
The relative level of debt is decreasing - due to high inflation and unchanged euro exchange rate

Despite the strong growth of the absolute level of public debt in 2022, its relative level, expressed as a ratio to GDP, fell by 1.4 pp of GDP in that period. This was a consequence of the public debt currency structure, unchanged dinar exchange rate, and inflation. Debt expressed in dinars and euros accounts for over 80% of Serbia's public debt. In conditions of an almost unchanged nominal exchange rate of the dinar during 2022 and strong nominal GDP growth in 2022 (by about 13%), primarily due to high inflation, the growth of public debt expressed in dinars was slower than the growth of nominal GDP and, as a result, the debt-to-GDP ratio decreased. The relative reduction of public debt through relatively high inflation, with an unchanged nominal exchange rate (that is, real appreciation) has a short- and medium-term favourable impact on the level of state indebtedness, while the long-term impact is probably unfavourable, bearing in mind the negative impact of these factors on the determinants of economic growth, on which the sustainability of the debt depends to a large extent.

It is recommended to maintain the public debt at a lower level for a longer period

According to the level of public debt (measured by the debt-to-GDP ratio), Serbia is almost the median in Europe, which means that one-half of European countries have a higher level of debt. However, compared to the countries of Central and Eastern Europe, which are at a higher level of development, Serbia's public debt is moderately higher. Considering that in less developed countries public debt begins to negatively affect economic growth already at lower levels of indebtedness (that level is estimated at 45-60% of GDP for countries with a medium level of development), a fiscal policy is needed in the coming period led in a way that will keep the public debt in Serbia closer to the lower limit of this range. In this way, fiscal space will be provided for state intervention in case of escalation of the existing crisis or some future crises. In addition, the growth of interest rates on the world markets due to the increase in the restrictiveness of the monetary policy will affect the growth of spending on interests, which may affect the crowding out of some productive public spending or the reduction of the fiscal space for tax reduction in the future. By keeping the public debt at a lower level, the negative effect of monetary policy and interest risks would be reduced, which represents an additional argument for conducting a prudent fiscal policy.

Graph T6-6. Serbia: Public Debt Dynamic (% GDP)



Source: *QM* calculations using MFIN data

2 According to the Law on Public Debt, public debt includes the debt of the Republic arising from contracts concluded by the Republic, based on securities, contracts, i.e. agreements reprogramming the obligations assumed by the Republic under previously concluded contracts, as well as securities issued according to special laws, the debt of the Republic that arises from the guarantee given by the Republic or from directly assuming the obligation in the capacity of the debtor to pay the debt on the basis of the given guarantee, i.e. on the basis of the counter-guarantee given by the Republic, the debt of the local government for which the Republic has given a guarantee.

Apendices

Annex 1. Serbia: Consolidated General Government Fiscal Operations, 2010-2022 (bn RSD)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021					2022				
										Q1	Q2	Q3	Q4	Q1-Q4	Q1	Q2	Q3	Q3	Q1-Q4
I PUBLIC REVENUES	**1,472.1**	**1,538.1**	**1,620.8**	**1,694.8**	***1,842.7***	**1,973.4**	**2,105.3**	**2,278.6**	**2,255.0**	**594.5**	**691.4**	**683.4**	**742.7**	**2,711.9**	**678.6**	**802.8**	**771.8**	**821.9**	**3,075.8**
1. Current revenues	1,393.8	1,461.3	1,540.8	1687.6	*1833.3*	1964.9	2090.6	2263.7	2243.8	588.7	688.2	680.4	735.3	2692.6	676.5	799.9	766.9	816.0	3060.1
Tax revenue	1,225.9	1,296.4	1,369.9	1463.6	*1585.8*	1717.9	1822.2	1993.7	1990.8	531.2	624.6	608.8	655.6	2420.1	616.9	734.2	682.5	726.1	2759.7
Personal income taxes	35.3	156.1	146.5	146.8	*155.1*	167.9	179.4	203.7	204.2	55.6	70.2	61.5	68.7	255.9	63.5	84.8	71.2	83.0	302.4
Corporate income taxes	54.8	60.7	72.7	62.7	*80.4*	111.8	112.5	126.7	122.9	28.5	63.0	34.2	33.7	159.5	35.7	87.6	43.5	42.5	209.3
VAT and retail sales tax	367.5	380.6	409.6	416.1	*453.5*	479.3	499.8	550.6	549.3	139.2	165.0	169.7	185.0	658.9	181.4	201.3	196.4	200.4	779.5
Excises	181.1	204.8	212.5	235.8	*265.6*	279.9	290.0	306.5	306.0	78.9	73.8	91.1	86.3	330.0	84.3	80.0	86.8	86.6	337.8
Custom duties	35.8	32.5	31.2	33.3	*36.4*	39.7	43.6	48.1	51.9	13.3	14.4	15.8	18.5	62.0	18.4	19.0	19.9	21.7	79.0
Other taxes	42.6	43.5	57.3	63.3	*67.3*	567.4	77.1	82.1	82.7	20.9	23.1	22.5	25.4	91.8	22.7	24.4	24.9	27.6	99.6
Social contributions	378.9	418.3	440.3	505.7	*527.5*	71.9	619.7	675.9	673.7	194.8	215.2	214.0	238.0	862.0	211.0	237.1	239.8	264.4	952.2
Non-tax revenue	37.9	34.9	170.9	224.0	*247.5*	247.0	268.4	270.0	253.0	57.6	63.7	71.6	79.6	272.5	59.6	65.7	84.4	89.9	300.4
II TOTAL EXPENDITURE	**-1,717.3**	**-1,750.2**	**-1,878.9**	**-1,844.0**	***-1,899.7***	**-1,921.1**	**-2,073.0**	**-2,289.7**	**-2,697.7**	**-607.2**	**-717.5**	**-712.6**	**-934.0**	**-2,971.3**	**-746.7**	**-750.3**	**-708.1**	**-1,087.1**	**-3,297.1**
1. Current expenditures	-1,479.9	-1,549.8	-1,628.0	-1696.6	*-1,717.9*	-1745.3	-1847.2	-2001.7	-2352.9	-541.9	-636.0	-577.9	-689.7	-2445.5	-661.7	-619.6	-593.5	-686.3	-2565.5
Wages and salaries	-374.7	-392.7	-388.6	-419.2	*-417.7*	-426.3	-468.8	-516.3	-578.9	-153.1	-158.0	-155.2	-162.6	-629.0	-168.9	-173.5	-168.0	-173.1	-683.5
Expenditure on goods and services	-235.7	-236.9	-256.8	-257.6	*-283.6*	-301.6	-343.4	-379.3	-441.0	-96.8	-105.1	-123.8	-164.6	-490.3	-109.8	-131.8	-118.7	-175.9	-540.2
Interest payment	-68.2	-94.5	-115.2	-129.9	*-131.6*	-121.2	-108.6	-108.9	-110.2	-48.2	-21.5	-28.4	-10.7	-108.7	-53.2	-21.0	-22.8	-10.0	-107.0
Subsidies	-111.5	-101.2	-117.0	-134.7	*-112.7*	-113.3	-109.7	-121.2	-251.5	-25.5	-84.8	-31.9	-64.0	-206.3	-38.5	-31.5	-34.1	-56.3	-160.5
Social transfers	-652.5	-687.6	-696.8	-710.0	*-716.8*	-720.1	-746.0	-782.9	-806.3	-202.4	-214.0	-217.1	-216.6	-850.0	-249.6	-222.6	-220.8	-235.7	-929.0
o/w: pensions	-473.7	-498.0	-508.1	-490.2	*-494.2*	-497.8	-525.2	-559.3	-583.5	-151.1	-153.2	-152.4	-152.0	-608.7	-156.8	-159.0	-158.5	-163.4	-637.8
2. Capital expenditures	-126.3	-84.0	-96.7	-114.5	*-139.3*	-133.9	-199.3	-266.3	-293.2	-62.5	-70.7	-131.3	-202.1	-466.6	-76.4	-122.0	-94.3	-215.1	-508.2
3. Called guarantees	-3.7	-7.9	-29.7	-30.1	*-39.1*	-28.8	-19.7	-10.8	-7.5	-1.8	-1.8	-1.8	-2.3	-7.7	-1.5	-3.1	-6.9	-6.2	-17.7
4. Buget lendng	-38.2	-35.6	-55.4	-2.7	*-3.3*	-13.2	-6.8	-10.9	-44.2	-1.0	-9.1	-1.5	-39.9	-51.5	-7.1	-5.6	-13.4	-179.5	-205.6
CONSOLIDATED BALANCE	**-245.2**	**-212.1**	**-258.1**	**-149.1**	***-57.1***	**52.3**	**32.2**	**-11.1**	**-442.8**	**-12.7**	**-26.1**	**-29.3**	**-191.4**	**-259.4**	**-68.1**	**52.5**	**63.8**	**265.2**	**221.2**

Source: *QM* calculations based on the MoF data

Annex 2. Serbia: Consolidated General Government Fiscal Operations, 2012-2022 (real growth rates, %)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021					2022				
										Q1	*Q2*	*Q3*	*Q4*	*Q1-Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1-Q4*
I PUBLIC REVENUES	**0.6**	**-2.2**	**3.2**	***3.1***	***7.5***	***4.0***	**4.6**	**6.2**	**-2.6**	**9.2**	**40.8**	**11.5**	**5.7**	**15.5**	**5.0**	**4.9**	**1.0**	**-3.8**	**1.4**
1. Current revenues	0.1	-2.6	3.3	*3.3*	*7.4*	*4.1*	*4.3*	*6.3*	*-2.4*	*8.7*	*41.0*	*11.4*	*5.2*	*15.3*	*5.7*	*5.1*	*0.7*	*-3.6*	*1.6*
Tax revenue	1.0	-1.7	3.5	*0.3*	*7.2*	*5.2*	4.0	7.4	-1.7	8.8	43.7	13.0	6.9	16.8	6.8	6.3	0.2	-3.8	1.9
Personal income taxes	2.1	-12.2	-8.1	*-1.2*	*4.5*	*5.1*	4.8	11.4	-1.4	11.3	50.0	19.5	6.3	20.4	5.1	9.2	3.4	5.0	5.6
Corporate income taxes	35.1	2.9	17.4	*-15.0*	*26.9*	*35.0*	-1.3	10.6	-4.5	16.1	162.0	-32.1	16.1	24.7	15.1	25.6	13.9	9.4	17.3
VAT and retail sales tax	0.0	-3.8	5.4	*0.2*	*7.8*	*2.6*	2.2	8.1	-1.8	2.4	30.1	14.7	14.6	15.3	19.9	10.3	3.4	-5.9	5.7
Excises	-1.2	5.1	1.6	*9.4*	*11.4*	*2.3*	1.6	3.7	-1.7	1.8	2.8	15.2	-4.5	3.6	-1.7	-1.9	-14.8	-12.8	-8.5
Custom duties	-14.0	-15.6	-6.5	*5.9*	*8.1*	*5.8*	7.8	8.1	6.3	10.1	18.5	11.0	18.1	14.7	27.4	19.7	12.7	1.6	13.9
Other taxes	-8.8	-5.2	29.2	*8.9*	*5.1*	*4.4*	5.2	4.5	-0.9	13.1	25.9	-3.2	-3.4	6.6	0.1	-4.5	-0.9	-5.7	-3.1
Social contributions	1.9	2.6	3.1	*-2.1*	*3.2*	*3.8*	7.1	7.0	-1.9	14.7	59.7	24.3	5.4	22.9	-0.4	-0.4	0.1	-3.5	-1.3
Non-tax revenue	-6.2	-8.7	1.5	*27.9*	*9.3*	*-3.1*	6.5	-1.3	-7.8	8.7	18.9	-0.5	-7.1	3.5	-4.8	-6.7	5.4	-1.8	-1.5
II TOTAL EXPENDITURE	**4.3**	**-0.3**	**5.2**	***-3.2***	***1.9***	***-1.7***	***5.8***	***8.4***	***16.0***	***1.7***	***-5.3***	***7.1***	***18.2***	***5.8***	***13.1***	***-5.5***	***-11.2***	***1.1***	***-0.8***
1. Current expenditures	4.1	-2.7	2.9	*-1.4*	*0.2*	*-1.2*	*3.8*	*6.3*	*15.7*	*0.7*	*-6.1*	*-3.0*	*8.1*	*-0.1*	*12.3*	*-11.9*	*-8.2*	*-13.5*	*-6.2*
Wages and salaries	2.0	-2.6	-3.1	*-9.7*	*-1.4*	*-0.9*	*7.8*	*8.1*	*10.4*	*7.9*	*7.1*	*3.8*	*-0.8*	*4.4*	*1.5*	*-0.8*	*-3.3*	*-7.5*	*-2.9*
Expenditure on goods and services	1.5	-6.6	6.2	*-1.1*	*8.9*	*3.3*	*11.6*	*8.4*	*14.5*	*-0.7*	*-9.2*	*22.8*	*12.8*	*6.8*	*4.3*	*13.4*	*-14.3*	*-7.1*	*-1.5*
Interest payment	41.9	28.8	19.3	*11.2*	*0.2*	*-10.6*	*-12.1*	*-1.6*	*-0.4*	*0.5*	*29.8*	*14.8*	*-57.1*	*-5.2*	*1.6*	*-11.6*	*-28.3*	*-18.4*	*-12.0*
Subsidies	29.1	-15.6	13.2	*13.6*	*-17.3*	*-2.3*	*-5.1*	*8.4*	*104.3*	*-2.9*	*-10.6*	*-66.5*	*41.0*	*-21.2*	*39.2*	*-66.4*	*-4.5*	*-23.6*	*-30.5*
Social transfers	-0.1	-2.1	-0.7	*0.5*	*-0.1*	*-2.1*	*1.6*	*3.0*	*1.4*	*2.6*	*2.3*	*5.9*	*-5.0*	*1.3*	*13.4*	*-6.0*	*-9.1*	*-5.4*	*-2.3*
o/w: pensions	*4.4*	*-2.3*	*-0.1*	*-4.8*	*-0.3*	*-2.2*	*3.4*	*4.5*	*2.7*	*2.9*	*1.4*	*0.0*	*-3.1*	*0.2*	*-4.5*	*-6.2*	*-7.0*	*-6.6*	*-6.4*
2. Capital expenditures	6.0	-38.2	12.7	*16.8*	*20.3*	*-6.7*	*45.9*	*31.1*	*8.4*	*12.3*	*12.7*	*112.9*	*59.1*	*52.9*	*12.3*	*56.0*	*-35.8*	*-7.5*	*-2.7*
3. Called guarantees	-3.7	248.7	267.8	0.1	28.5	-28.5	-32.9	-46.3	-31.8	6.4	6.4	-27.2	17.9	-1.6	-19.5	58.2	234.4	136.9	107.2
4. Buget lending	-38.2	44.2	52.2	-95.1	20.8	283.9	-49.3	57.0	299.3	-51.2	-40.7	-74.1	71.5	12.0	571.6	-44.3	681.5	290.9	256.7

Source: *QM* calculations based on the MoF data

7. Monetary Trends and Policy

Despite the rises in the key policy rate in Q4, inflation continued rising compared to the previous quarter in the next two months of 2023. The last quarter of the year ended on the FX market with pronounced appreciation pressure causing the National Bank of Serbia (NBS) to become a net buyer of hard currency totalling more than 1.4 billion Euro in Q4. That amount on intervention had a positive effect on the level of NBS net own reserves which were increased by more than a billion Euro in Q4. At the same time Net Domestic Assets (NDA) recorded an increase of 194 million Euro which contributed to the rise in the level of primary money in Q4 of 1.25 billion Euro. Although the nominal y.o.y. growth of M2 remained at the same level as in previous quarters, the real growth rate of the M2 was negative for a fourth quarter in a row because of significantly higher inflation. The net placements of banks slowed down visibly in Q4 mainly due to significant repayments by companies of some 270 million Euro and minimal increase among households of 20 million Euro. The growth of net placements by business banks in Q4 was solely the result of increased placements into REPO by banks and the growth of net state debts. Net placements to companies in Q4 were positive because of the higher repayments of debts to banks abroad by companies. At the same time, high growth of credit potential by 1.59 billion Euro was recorded in sources for new placements by the banking sector. That growth was achieved in Q4 mainly through the growth of deposits by companies and households mostly in Dinars. The share of NPLs dropped slightly in Q4 despite the stricter conditions for loans and rising risks in terms of problematic debts. Interest rates on indexed loans saw a growth on average of one percentage point at the level of Q4 with further growth expected. Real interest rates on Dinar loans increased compared to the previous quarter but still in the negative value zone beause of a further rise in inflation and are expected to remain there for most of 2023.

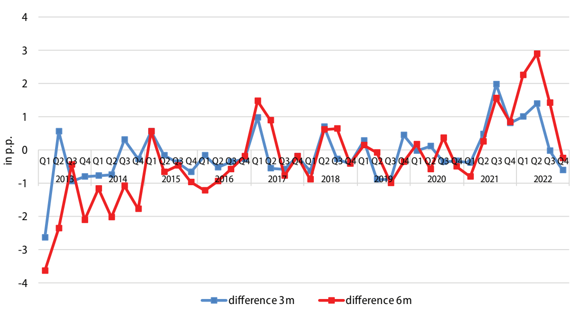
Central Bank: Balances and Monetary Policy

Inflation continued growing in Q4 …

…the NBS continued raising its key policy rate

The y.o.y. growth of prices continued in Q4 to reach 15.1 percent in December 2022. Data for January and February showed that inflation continued to rise with 15.8 percent and 16.1 percent y.o.y. respectively. Since the inflation level greatly exceeded the NBS target framework for 2022, the key policy rate was raised in Q4 three times by 0.5 percentage points each time and stood at 5 percent in December. It was raised three more times in 2023, in January, February and March by 0.25 percentage points taking it to the current level of 5.75 percent. Serbia was late in raising energy prices and inflation will start dropping later than in most European countries (see chapter on prices and exchange rate). Challenges could appear if the crisis spills over from banks in the United States and Switzerland which rocked the international financial markets in the space of a few days. Although inflation trends will be strongly influenced this year by rising fuel prices, the NBS needs to continue implementing its restrictive policies in 2023. The implementation of that policy was justified by the upsets in the international environment which is linked to geo-political conflict and the possible spread of the banking crisis in developed countries.

Graph T7-1. Deviation from projected inflation for 3 and 6 months ahead of real situation 2013-2022



Source: NBS

NBS continues buying hard currency on FX Market due to appreciation pressure

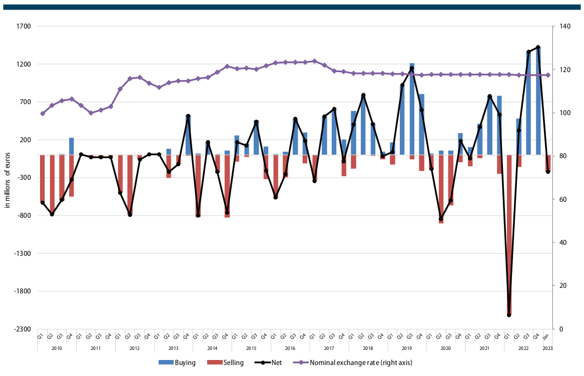
Pressure on the FX Market in Q4 continued causing the Dinar exchange rate to strengthen which led the NBS to intervene in order to prevent an appreciation of the Dinar. The last quarter of 2022 ended with a record amount of hard currency bought totalling 1.425 billion Euro by

Table T7-2. NBS interventions and hard currency reserves 2020-2022

	2020				2021				2022			
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
Repo stock (in milions of euros)	88.43	345.75	256.71	272.37	258.67	292.79	367.34	386.12	163.86	71.79	407.18	978.31
NBS interest rate	1.75	1.25	1.25	1.00	1.00	1.00	1.00	1.00	1.00	2.50	3.50	5.00
NBS interest rate	-2.62	-0.36	2.88	0.20	-4.87	-2.57	-8.21	-3.72	-8.21	-15.28	-13.43	-1.10
NBS interest rate	1.75	1.25	1.25	1.00	1.00	1.00	1.00	1.00	1.00	2.50	3.50	5.00
(in milions of euros)	-185.00	1,030.00	1,635.00	1,450.00	50.00	-320.00	-1,100.00	-645.00	2,115.00	1,790.00	425.00	-1,000.00
INCREASE	**in millions of euros, cumulative from the beginning of the year**											
NBS own resreves[1)]	-201.91	-322.89	-1127.89	-770.14	-86.00	-44.56	1317.57	1728.18	-1347.40	-907.08	572.43	1,630.58
NDA	592.76	1391.49	1976.15	2017.65	-484.48	-630.84	-1203.02	-1656.03	912.15	260.68	-517.48	-323.11
Government, dinar deposits[2)]	100.38	487.16	665.59	420.51	-365.99	-526.99	-390.88	-176.63	-58.14	-605.39	-1091.07	-753.31
Repo transactions[3)]	510.15	254.94	339.57	339.18	1.00	1.07	-109.30	-122.00	276.49	315.13	-27.66	-558.82
Other items , net[4)]	-17.78	649.39	971.02	1257.97	-119.49	-104.92	-702.84	-1357.41	693.80	550.94	601.25	989.02
H	390.85	1068.59	848.29	1247.52	-570.48	-675.40	114.55	72.14	-435.25	-646.41	54.95	1,307.47
o/w: currency in circulation	42.56	333.93	326.93	485.89	-87.79	-18.30	115.34	243.35	-163.54	-227.18	-108.23	132.66
o/w: excess liquidity	296.70	610.39	322.16	515.50	-535.30	-756.68	-158.15	-399.57	-336.15	-473.83	13.76	958.95
	in millions of euros, cumulative from the beginning of the year											
NBS, net	-268.95	580.95	-336.74	125.20	787.48	604.17	3292.34	2933.18	-2116.45	-1644.96	83.94	2,014.96
Gross foreign reserves	-273.51	574.96	-349.60	110.88	786.49	605.09	3311.12	2967.24	-2149.45	-1678.88	51.62	2,966.20
Foreign liabilities	4.56	5.99	12.86	14.31	0.98	-0.92	-18.79	-34.07	33.01	33.92	32.32	-951.24
IMF	-0.24	1.53	2.95	4.50	-2.19	-5.33	-21.99	-37.98	33.17	33.17	33.17	-948.74
Other liabilities	4.81	4.46	9.91	9.81	3.17	4.40	3.21	3.91	-0.17	0.74	-0.85	-2.50
NBS, NET RESERVES-STRUCTURE												
1. NBS, net	-268.95	580.95	-336.74	125.20	787.48	604.17	3292.34	2933.18	-2116.45	-1644.96	83.94	2,014.96
1.1 Commercial banks deposits	-175.31	-208.87	-317.35	-420.26	-19.04	-127.35	-195.78	-391.28	17.14	-129.68	-209.78	-264.04
1.2 Government deposits	242.35	-694.97	-473.80	-475.07	-854.43	-521.37	-1778.99	-813.72	751.90	867.55	698.27	-120.35
1.3 **NBS own reserves**	-201.91	-322.89	-1127.89	-770.14	-86.00	-44.56	1317.57	1728.18	-1347.40	-907.08	572.43	1,630.58
(1.3 = 1 - 1.1 - 1.2)												

Source: NBS.
1) Definition of NBS net own reserves is given in section 8 Monetary Trends and Policy, Frame 4, *QM* No. 5.
2) State includes all levels of government: republic and local administration.
3) This category includes NBS treasury bonds and repo operations.
4) Other net domestic assets include: domestic loans (net bank debts not including treasury bonds and repo transactions; net company debts) along with other assets (capital and reserves; items on balance; other assets) corrected by changes to the exchange rate.

Graph T7-3. NBS interventions on FX Market 2010-2022



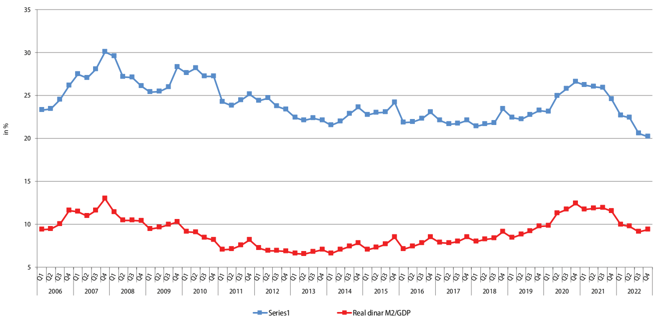
Source: NBS

the NBS on the FX market (in Q3, the NBS bought 1.365 billion Euro on the FX Market). The purchases in Q4 completely neutralized the effects of the large sale of hard currency on the FX Market in Q1 which came because of the uncertainty caused by the Russia-Ukraine conflict. At the level of the whole year, the NBS was a net buyer of hard currency totalling 1 billion Euro (Graph T7-3). The purchase of hard currency in Q4 had a positive effect on the level of NBS net own reserves which were increased by 1.06 billion Euro in the last quarter, contributing at the level of the whole year to the increase in net own reserves by 1.63 billion Euro (Table T7-2). Along with the growth of net own reserves in Q4, an increase in Net Domestic Assets (NDA) was recorded of 194 million Euro. The growth of the NDA was caused by the rise in loans in Dinars by the state of 338 million Euro and an increase in other NDA totalling 388 million Euro. On the other hand, bank placements in REPO had a negative effect on the growth of NDA by 531 million Euro. The growth of net own reserves helped by the growth of NDA caused the level of primary money to rise by 1.25 billion Euro in Q4 increasing the level of primary money for the whole year by 1.31 billion Euro.

The nominal growth of the money mass remained unchanged in Q4 …

… but the real dropped deepened

Graph T7-4. Money mass trends as percentage of GDP, 2005-2022



Source: *QM* calculation

Monetary System: Money Mass Structure and Trends

In Q4 the nominal M2[1] maintained a similar growth rate of 6.9 percent y.o.y. as in the previous quarter (in Q3 the nominal growth of the M2 was 6.8 percent y.o.y. , Table T7-5). The nominal growth of primary money was slightly higher than in the previous quarter standing at 4.6 percent but was still deeply negative in real terms. Almost the entire nominal increase in primary money was based on the growth of NDA of 4.4 percentage points while Net Foreign Assets (NSA) participated with 0.3 percentage points in the overall quarterly growth of primary money. Taking into consideration the growth of prices in general, the real growth rate of the M2 dropped into the negative by -7.1 percent y.o.y. , which is 1 percentage point less compared to the rates in the previous quarter. The nominal growth rate of loans to companies and households in Q4 slowed down to 7.1 percent y.o.y. , which means a drop in real terms of -6,9 percent y.o.y. . The real drop was more pronounced in loans to households which dropped by 7.8 percent y.o.y. in Q4, while the real growth rate of loans to companies recorded a drop of -6.1 percent y.o.y. (See Table T.7-5)

Table T7-5. Growth of money and contributing aggregates, 2020–2022

	2020				2021				2022			
	Mar	Jun	Sep	Dec	Mar	Jun	Spe	Dec	Mar	Jun	Sep	Dec
					y-o-y, in %							
M2 1)	10.1	19.0	18.8	18.1	18.7	12.4	12.7	13.3	8.3	6.0	6.8	6.9
Credit to the non-government sector 2)	11.1	13.4	15.1	11.9	9.8	8.0	6.4	9.7	11.6	12.7	11.2	7.1
Credit to the non-government sector 2), adjusted 3)	11.4	13.6	15.0	11.9	9.8	8.0	6.4	9.7	11.5	12.8	11.4	7.3
Households	9.3	12.8	14.3	11.8	11.9	10.6	8.9	10.6	10.4	9.7	8.3	6.2
Enterprises	13.1	14.2	15.7	11.9	8.1	6.0	4.3	8.9	12.3	15.5	14.1	8.2
M2 1)	8.7	17.1	16.6	16.6	16.7	8.9	6.7	5.1	-0.7	-5.1	-6.1	-7.1
Credit to the non-government sector 2), adjusted 3)	9.4	11.1	12.2	9.7	7.9	6.2	4.6	7.0	8.3	0.9	-2.2	-6.9
Households	7.6	10.5	11.6	9.7	9.6	8.4	6.7	7.7	7.4	-1.9	-4.9	-7.8
Enterprises	10.8	11.7	12.8	9.7	6.5	4.5	2.9	6.4	9.0	3.3	0.2	-6.1
					in bilions of dinars, end of period							
M2 1)	2,850.7	3,104.7	3206.4	3,334.7	3384.4	3489.3	3614.1	3778.0	3666.1	3699.1	3858.2	4037.4
M2 1) dinars	1,210.2	1,403.7	1463.3	1,553.8	1514.5	1587.8	1661.8	1768.0	1608.4	1607.1	1707.1	1876.5
Fx deposits (enterprise and housholds)	1,640.5	1,701.1	1743.1	1,780.9	1869.9	1901.5	1952.3	2010.0	2057.7	2092.0	2151.1	2160.8
					quarterly growth M2 4) and shares							
M2 1)	1.0	8.9	3.3	4.0	1.5	3.1	3.6	4.5	-3.0	0.9	4.3	4.6
NFA, dinar increase	0.8	6.8	1.9	2.8	-1.2	2.2	2.1	2.9	-4.2	0.0	2.7	4.4
NDA	0.1	2.1	1.4	1.2	2.7	0.9	1.5	1.6	1.3	0.9	1.6	0.3

Source: NBS
1) Money mass: components – see Analytical and Notation Conventions *QM*.
2) Loans to non-state sector – loans to companies (including local administration) and households.
3) Trends are corrected by changes to exchange rate. Corrections are based on the assumption that 70 percent of loans to non-state sector (companies and households) are indexed against the Euro.
4) Trends are corrected by changes to exchange rate. Corrections are based on the assumption that 70 percent of loans to non-state sector (companies and households) are indexed against the Euro.

Hard currency deposits contributed most to nominal growth of M2 …

… with lesser contributions by savings and timed deposits

Separating the y.o.y. nominal growth rate of the M2 money mass into its individual elements shows a slight change in the structure of the main causes of its growth compared to the previous quarter. As in the previous quarter, the greatest contribution to the growth of the M2 came from the increase in hard currency deposits accounting for 3.99 percentage points of the overall growth of the money mass. The second biggest contribution to the nominal growth of the M2 came from the nominal increase in savings and timed deposits which accounted of 1.96 percentage points of the growth of the m2 in Q4. The remaining 0.92 percentage points are

1 Monetary aggregate M2 in section Monetary Trends and Policy includes the lesser aggregate M1, savings and timed deposits as well as hard currency deposits in business banks. That means that the M2 aggregate which we observe is equal to the monetary aggregate M3 in NBS reports.

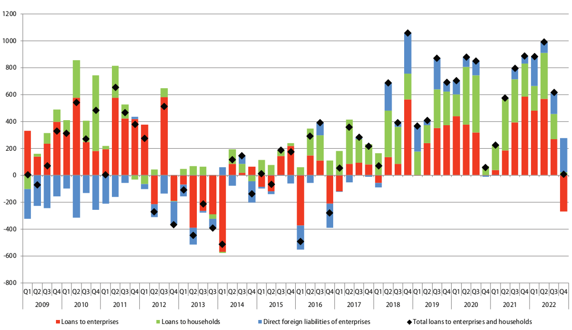
from the nominal growth recorded with the lesser monetary aggregate M1. The growth of the M2 by 6.86 percentage points was nominally halved in 2022 compared to the previous year with the slowing down of the nominal growth most pronounced in the lesser aggregate M1 with a significant slowing down noted with hard currency deposits. If we take into account the fact that inflation picked up speed in 2022, those nominal changes are not enough to bring the real growth rate into the positive zone and we expect a similar trend to continue through most of 2023. In general, we can say that the slowing down of the nominal growth of the money mass and loans and their drop in real terms is the expected result of the restrictive monetary policy which the NBS has been implementing from the second quarter of the previous year. Although that policy slows down economic activity, it is necessary to reduce the imbalance between supply and demand and act to lower inflation.

Banking Sector: Placements and Sources of Financing

In Q4 nominal loans to companies dropped and to households stagnated but both dropped in real terms…. The growth of business bank placements in REPO increased

Credit activity picked up in the previous two quarters but slowed down significantly in Q4 when the growth of net placements by banks stood at 553 million Euro (in Q3 the growth of those net placements totalled more than a billion Euro, Table T7-7). At the level of the year 2022, total net placements by banks recorded an increase of 1.94 billion Euro which is the lowest annual growth of placements since 2018. In terms of the determining elements of the overall net increase of placements, the one thing that causes the most concern is the fact that net placements to companies and households were negative in Q4 which means that existing debtors repaid business banks more on earlier loans than the value of new loans. This was solely the consequence of repayment by companies to domestic banks which stood at 271 million Euro in Q4 while the net placements to households was slightly positive totalling 20 million Euro (in Q3 the net placements to companies stood at 268 million Euro and to households at 185 million Euro). At annual level, the overall net placements to households and companies were just above the level of 2018 with the slower growth of net placements most evident in the households sector with the lowest value since 2016. At quarterly level, the growth of overall net placements was mainly the consequence of increased placement into REPO by 571 million Euro, which neutralized the effects of the loan repayments by companies in Q4. Since business banks withdrew funds from REPO placements in the first half of the year, repo stock at the level of 2022 increased just slightly more than growth in the last quarter. The increased net placements by business banks were helped with the added debts taken by the state which increased its debts to domestic banks in Q4 by 234 million Euro. Despite that, the net debts of the state at annual level were negative at -438 million Euro which practically means that the state paid more money into its accounts with business banks than it withdrew.

Graph T7-6. growth of new loans to companies and households, 2005-2022



Source: *QM* calculation
see footnote 1 in Table T7-5

Growth of cross-border loans compensated by company repayments to domestic banks in Q4

The overall net debts by companies and households in Q4 was almost at zero when we add data on direct company debts abroad to the domestic banking sector. Company repayments to domestic banks were accompanied with an increase in net debts to foreign banks by 256 million Euro which is the biggest amount of net foreign debts in the past 10 years (GraphT7-6).

Business banks expect even stricter standards for loans to companies and households

That amount, along with the minimal net growth of household debt, was almost equal to the company repayments to domestic banks which brought the growth on net placements to companies and households in Q4 to 5 million Euro taking into consideration domestic and foreign sources.

At the level of the year 2022, the overall growth of loans was 2.48 billion Euro which is almost exactly the same as the growth of net loans in the previous two years. The biggest difference was in the structure of growth of net debts with the net growth of household debts visibly slowing down while on the other hand, a growth of company net debts was noted with an increase in the net loans companies took out abroad. The structure of credit placements to companies in Q4 showed that more than half of the loans approved in that quarter were for liquidity and current assets, half of which were intended for micro, small and medium companies. Some 28 percent of new loans were approved for investments, more than two thirds of which drawn by micro, small and medium companies. Among households, credit activity in Q4 saw growth of cash loans which accounted for some 54 percent of the loans to households in that quarter while housing loans accounted for some 26 percent. The latest poll on bank credit activities showed that, in line with predictions from the previous issue, the standards for loans to companies and households become stricter in Q4 and that in Q1 2023 we can expect more moderate stricter standards. The greatest stiffening of conditions for loans to companies was on loans indexed in hard currency and loans to big companies. The conditions for loans to companies were made stricter in the elements of debt cost, maximum time of loan, requirements in terms of collateral and the maximum amount of loan. The stricter rules for loans to households were most pronounced for cash and housing indexed loans. The deteriorated conditions for loans to households in Q4 were the rise in interest rates and stricter requirements in terms of collateral while the other segments remained unchanged. Banks expect a slight rise in demand for loans to companies in Q1 2023 with a drop expected for loans to households but less than the drop in the last quarter of 2022. Those predictions were made in the period before the mini-banking crisis broke out in the United States with the bankruptcy of the Silicon Valley Bank and liquidation of the Silvergate and Signature banks as well as the urgent loan which the Swiss central bank approved for the Credit Suisse bank to stop the liquidity crisis and prevent panic from spreading which could

Table T7-7. Bank operations – Sources and structure of placements, corrected[1)] trends, 2020-2022

	2020				2021				2022			
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
	in millions of euros, cumulative from the beginning of the year											
Funding(-, increase in liabilities)	0	-2,196	-3,190	-3,999	-170	-931	-1,979	-3,879	1,153	457	-1,448	-3,031
Domestic deposits	-178	-2,082	-2,931	-3,836	-417	-1,154	-2,001	-3,391	871	673	-605	-2,039
Households deposits	-66	-724	-1,095	-1,642	-352	-885	-1,279	-2,022	646	264	2	-535
dinar deposits	-63	-552	-756	-1,041	-15	-218	-410	-776	716	646	459	-21
fx deposits	-4	-173	-339	-601	-337	-667	-869	-1,246	-70	-383	-457	-514
Enterprise deposits	-111	-1,358	-1,836	-2,194	-65	-270	-722	-1,369	225	409	-606	-1,504
dinar deposits	-75	-983	-1,270	-1,578	326	89	-137	-671	548	762	223	-628
fx deposits	-36	-375	-566	-616	-391	-358	-586	-698	-323	-353	-829	-876
Foreign liabilities	-216	-403	-432	-290	78	95	31	-485	-22	-377	-862	-773
Capital and reserves	393	290	173	127	169	129	-9	-3	303	162	19	-218
Gross foreign reserves(-,decline in assets)	-60	450	504	672	860	987	891	895	-12	-328	54	-239
Credits and Investment[1)]	269	1,332	2,276	2,451	211	985	1,705	2,711	16	368	1,386	1,939
Credit to the non-government sector, total	602	1,407	2,149	2,214	225	784	1,491	2,307	663	1,583	2,036	1,785
Enterprises	438	815	1,133	1,131	38	219	610	1,191	475	1,052	1,320	1,049
Households	164	592	1,016	1,083	187	565	881	1,116	188	531	716	736
Placements with NBS (Repo transactions and treasury bills)	-514	-257	-346	-330	-14	20	95	114	-221	-314	22	593
Government, net[2)]	181	182	472	567	0	180	119	290	-426	-902	-672	-438
MEMORANDUM ITEMS												
Required reserves and deposits	1,076	1,213	1,117	1,086	-269	-186	40	128	89	154	729	1,566
Other net claims on NBS[3)]	-730	-271	-277	-44	-195	-383	-130	223	-836	-596	-627	-383
o/w: Excess reserves	-594	-348	-340	48	-220	-430	71	9	-443	-487	-420	-173
Other items[4)]	-562	-567	-492	-219	-436	-470	-526	-80	-421	-35	-67	174
Effective required reserves (in %)[5)]	19	18	19	17	16	16	16	16	16	16	17	19

Source: NBS

1) Growth is calculated under the assumption that 70 percent of overall placements are indexed against the Euro. Growth for originally Dinar deposits are calculated based on the average exchange rate for the period. For hard currency deposits as the difference calculated on the basis of the state at the ends of periods. Capital and reserves are calculated based on the Euro exchange rate at the ends of periods and do not include the effects of exchange rate changes in calculating the remainder of the balance.

2) NBS bonds includes state bonds and NBS treasury bonds sold at repo rates and rates set on the market for permanent auction sales with a due date of more than 14 days.

3) Net loans to the state: Loans approved to the state reduced by the state deposits in business banks; the negative prefix designates a higher rise of deposits than of loans. State includes all levels of government: republic and local administration.

4) Other NBS debts (net): The difference between NBS loans to banks on the basis of cash and free reserves and debts to the NBS.

5) Items on bank balance: other assets, deposits by bankrupt companies; inter-bank relations (net) and other assets not including capital and reserves.

6) Effective mandatory reserve is the share of mandatory reserve and deposits in the overall deposits (households and companies) and bank debts abroad. The basis for calculation of the mandatory reserves does not include subordinate debt because that data is not available.

seriously jeopardize the banking system. Bearing in mind this fairly turbulent period on the inter-banking market and the relatively negative reactions by domestic banks which immediately neutralized their exposure to Credit Suisse, we believe that banks will be even more cautious when approving loans in 2023.

Credit potential increases significantly in Q4 …

… mainly due to growth of household and company deposits

A big rise in sources for new placements by business banks by 1.59 billion Euro was recorded in Q4. At the level of 2022, domestic banks achieved an increase in sources for new placements of 3.03 billion Euro, more than two thirds of which is the result of growth of net domestic deposits (in 2021 the growth of sources for new placements was 3.88 billion Euro, Table T7-7). The quicker growth of credit potential among business banks in Q4 was almost solely the consequence of increased net domestic deposits which recorded a growth of more than 1.43 billion Euro. Most of the growth of net domestic deposits was the result of increased company deposits by 898 million Euro in Q4 while households increased their deposits with business banks by 537 million Euro. The hard currency structure of the increase in net deposits by companies and households shows that more than 90 percent of the growth of sources for new placements was generated from increased Dinar deposits while the rest is the consequence of the growth of hard currency deposits. Along with the growth of net domestic deposits in Q4, the decision by business banks to increase their capital and reserves by 237 million Euro had a positive effect on the growth of credit potential. Following the reduction of capital and reserves at the start of the year, the overall capital and reserves of business banks at the level of the year 2022 increased by 2 billion Euro. The only negative contribution to the growth of credit potential in Q4 came from the repayment of 89 million Euro by business banks abroad but despite the significantly higher net debts in previous quarters, that amount rose to 773 million Euro.

Table T7-8. Share of NPLs according to debtor type, 2008-2022

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	Dec	Dec	Dec	Dec	Dec	Dec	Dec	Q4	Q4	Q4
Corporate	12.14	14.02	17.07	19.06	27.76	25.5	24.40	19.48	13.83	9.63
Entrepreneurs	11.21	15.8	17.07	15.92	20.82	43.29	29.92	27.42	16.96	9.07
Individuals	6.69	6.71	7.24	8.32	8.59	9.97	10.53	9.66	6.43	4.72
Ammount of dept by NPL (in bilions of euros)	1.58	1.94	2.63	3.19	4.09	3.70	3.52	2.83	2.16	1.52

	2019				2020				2021				2022				**2023**	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Jan	Feb
	balance at the end of period																	
Corporate	9.57	9.07	8.35	7.69	6.90	6.32	6.08	5.90	5.66	5.04	5.16	4.91	4,13	4.22	4.25	4.16	4.12	4.15
Entrepreneurs	8.82	8.57	8.67	7.82	7.82	6.93	6.42	6.10	5.64	5.32	5.03	6.01	6,08	6.48	6.51	6.41	6.66	6.56
Individuals	4.66	4.62	4.46	4.36	4.43	3.36	3.55	3.46	3.69	3.63	3.84	3.90	3,6	3.69	3.93	3.85	3.96	3.78
Ammount of dept by NPL (in bilions of euros)	1.51	1.46	1.43	1.38	1.32	1.18	1.22	1.19	1.20	1.13	1.19	1.21	1.08	1.14	1.19	1.16	1.16	1.14

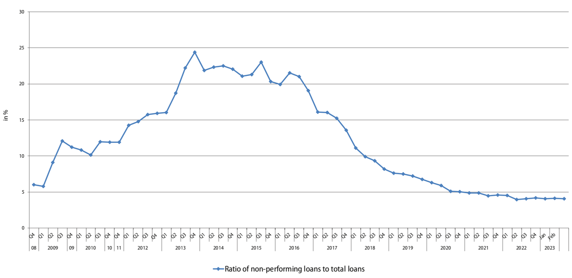
Source: *QM* calculation

Share of NPLs drops slightly in Q4…

… despite deteriorating economic trends and higher interest rates

The share of NPLs in overall placements at the end of 2022 dropped slightly compared to the previous quarter and was practically at the same level as in Q2. According to the Credit Bureau and QM methodology[2] the share of NPLs stood at 4.08 percent which is a minimal change of 0.08 percentage points compared to the previous quarter (GraphT7-9). The drop at quarterly level is evident in individual segments with the biggest being with entrepreneurs standing at 0.2 percentage points in Q4. Since the overall amount of NPLs placed to companies is relatively low, this drop did not have any great significance in the change in the overall share compared to the drops of 0.09 percentage points and 0.08 percentage points recorded with companies and households respectively (Table T7-9). Viewed at the level of 2022, the share of NPLs dropped compared to the level at the end of 2021 which was not expected bearing in mind the slowing of economic activities, drop in the real value of earnings and increases in interest rates during last year. The first data for January and February 2023 showed minimal changes in terms of the share of NPLs even though bankers have been showing more reservation than before about the risk of a rise in NPLs in the coming period according to the latest poll on credit activity.

Graph T7-9. Share of NPLs in overall placement, 2008-2022



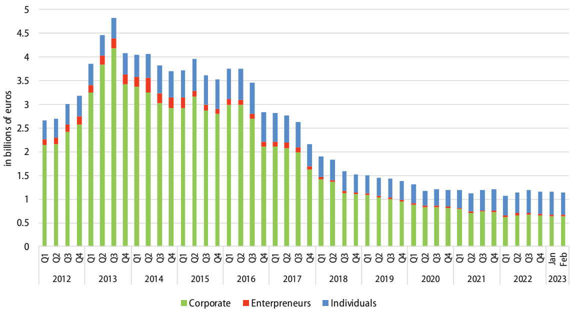
Source: *QM* calculation

2 For details about calculation of share of NPLs see *QM6* – Spotlight On 1: NPLs in Serbia – what is the real measure?

The key central banks are continuing to raise their interest rates…

… with first signs of weakness in the banking system

Graph T7-10. Remaining debt on loans falling late, 2012-2022



Source: *QM* calculation

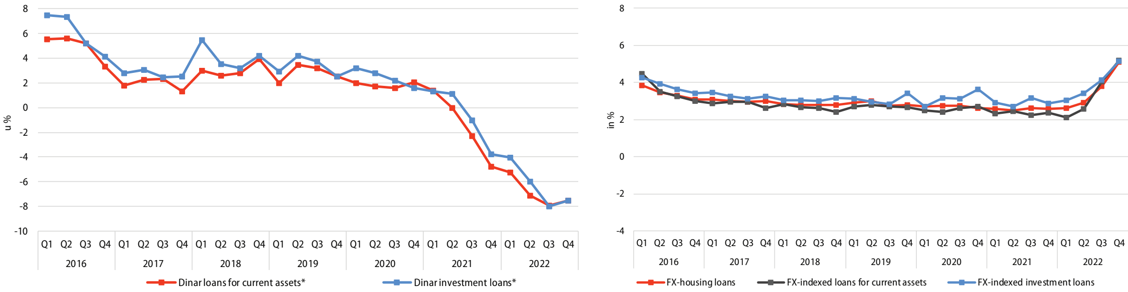
Interest rates: state and trends

At its last meeting in March, the European Central Bank (ECB) said that data suggests that inflation will remain at a high level for longer than initially projected. The ECB Board decided to raise three key policy rates by 50 base points in line with the plan to secure a timely return of inflation to the medium-term target of 2 percent. Current ECB projections are for inflation to stand at around 5.3 percent in 2023 then at 2.9 percent in 2024 and return to 2.1 percent in 2025. The ECB raised interest rates across the Euro zone despite fears that higher cost of loans could cause a domino effect in the banking sector which has already been shaken up by the loss of confidence in Credit Suisse – the second biggest bank in Switzerland. The decision to continue raising the ECB key policy rate came just hours after the Swiss central bank jumped in with a loan of 50.4 billion Euro (50 billion Swiss Francs) for Credit Suisse. That intervention was intended to ease fears about the liquidity of one of the 30 banks which are considered to be too big to fail at global level. The Credit Suisse crisis ended when UBS took it over but there is still a risk of a crisis in one of the big global banks. A fairly turbulent period in the banking system was recorded in the United States where three banks were shut down in March in a period of 72 hours with the American regulatory body for deposit insurance being forced to react for SVB and Signature to prevent the crisis from spilling over into the rest of the banking sector. Just four days later the First Republic Bank also reported problems but interestingly this time private banks (J. P. Morgan Chase, Bank of America, Wells Fargo, Citigroup and Truist) joined forces and secured 30 billion Dollars in liquidity support to stabilize the market. The FED meeting in mid-March said key policy rates would be raised again by an additional 0.25 percentage points which will be the second increase this year following the increase by the same amount in February. Efforts to lower inflation in the US faced difficulties because the FED pumped 300 billion Dollars into the banking sector in just seven day to support liquidity.

Those changes took place in March and have not had a significant effect on the banking sector in Serbia. The average weighted interest rate in Serbia changed significantly in Serbia in Q4 in terms of indexed loans because of the rise of the Euribor since the start of the year. Real interest rates on Dinar loans increased slightly thanks to rising inflation which mainly neutralized the growth of nominal rates to the end of the year. The average weighted interest rates on housing loans increased in Q4 by 1.32 percentage points compared to the previous quarter reaching the record high level of 5.11 percent in December, last recorded in the first half of 2012 (GraphT7-11b). The average weighted interest rates on indexed current asset loans rose in Q4 by 1.13 percentage points compared to the previous quarter which raised those interest rates to the level of 5.17 percent, the highest level in the past seven year. The lowest increase of 1.02 percentage points at quarterly level was with interest rates on indexed investment loans which stood at 5.16 percent in December. At annual level, the average weighted interest rate on indexed loans rose on average by 2.55 percentage points which, bearing in mind their level at the end of 2021, meant that they had practically doubled.

Much lower changes in Q4 were noted with real interest rates on Dinar loans (GraphT7-12a). Since y.o.y. inflation in Q4 was at 1.1 percentage points over the value in the previous quarter, the nominal increase of interest rates on Dinar loans of 1.53 percentage points on average did not have a full effect on the growth of real interest rates. Viewed individually, the average real weighted interest rate on Dinar current asset loans increased by 0.4 percentage points but it was still deeply in the negative zone with -7,55 percent. At annual level, the real interest rate for those loans dropped by -2.76 percentage points. Something similar was recorded with the average real weighted interest rate on Dinar investment loans which grew by 0.74 percentage points in Q4 but continued to be deeply negative in real terms (-7,53 percent). At annual level, this interest rate deepened its fall by -3.78 percentage points, double the lowest value since the start of the year.

Graph T7-11. Interest rates on Dinar and indexed loans, 2016–2022



Source: *QM* calculation
* real interest rates

HIGHLIGHTS

Highlight 1: Recovery of international tourism from the consequences of the COVID-19 pandemic in Europe and Serbia

Radivojević Aleksandar[1]

Introduction

In 2019, tourism accounted for about 10% of the total world GDP. That this sector is one of those most affected by the COVID-19 pandemic is indicated by the fact that in 2020 this share was almost halved, to just over 5%[2].

According to data from the World Tourism Organization, more than 900 million tourists traveled outside their countries in 2022, which is almost twice as many as in 2021. The entire world international tourist traffic in 2022 reached 63% of the pre-crisis level from 2019. At the level of European countries, the level of inflow of foreign tourists reached even 79% of the pre-crisis level[3]. International tourism represents the most important indicator of the competitiveness of a country's tourist offer, i.e., the country's ability to attract foreign tourists in competition with other countries. In addition, international tourism is also significant in terms of foreign currency inflow as it in essence represents the export of a country.

As the impact of the pandemic on tourism was very significant, we can only observe the real recovery and the achieved level of tourism in relation to the year that preceded the pandemic, i.e. 2019. Not even three years after the outbreak of the COVID-19 pandemic, the level of tourism in Europe has not returned to the pre-pandemic level, but the latest official data show that a number of countries are close to reaching the level of 2019. The different speed of recovery of individual European countries, including Serbia, is primarily influenced by the still limited movement of tourists from China, different conditions for entering individual European countries, as well as geopolitical instability and the war in Ukraine.

The tourism sector in Serbia is recovering faster than in most other European countries. And although the number of tourist arrivals and overnight stays is at a higher level compared to 2019, it is a result of the movement of Serbian citizens within their country. The actual recovery of tourism and its development is better observed from the point of view of foreign tourists, their number and the number of days spent in the country. According to this indicator, Serbia is very close to the level from 2019.

The recovery of total tourism in Serbia, including domestic and foreign tourists, will also be presented in this paper. This data shows the success of the recovery of the tourism sector in Serbia, that is, the business of service providers in the tourism sector. However, it should be borne in mind that the success of the tourism sector based on domestic tourists can be influenced by factors that do not reflect the real competitiveness of this sector. Perhaps the simplest example is the distribution by the Government of the Republic of Serbia of 350,000 vouchers for the travel of Serbian citizens within the country in 2022, the financing of which will in the end be transferred to taxpayers. The pandemic and the post-pandemic period some tourist regions of Serbia and tourist places used better of than others resulting in significant changes in the structure of tourist traffic according to regions and tourist locations.

This paper presents data on the recovery of tourism according to the statistics of international tourists (number of arrivals and number of overnight stays) for certain European countries and Serbia. These statistics indicate to the best extent the competitive position of the country in terms of tourism offer. A special analysis for Serbia includes an analysis of the recovery of tourism including domestic tourists, which indicates the different speed and success of the recovery of certain tourist places and regions in Serbia. This analysis mainly shows the success of local tourism organizations in Serbia and actors of the business sector in the recovery from the crisis caused by the COVID-19 pandemic.

The importance of tourism

Tourism is a sector of great importance for most countries for several reasons. First of all, a number of countries largely depend on tourism as the most important or very important economic sector. Second, the arrival of foreign tourists provides an inflow of foreign currency. Third, a large number of people are employed in the tourism sector. In 2019, almost 1 in 10 employees and 1 in 4 newly employed workers in the world were from the tourism sector[4]. In addition, 54% of employees in the tourism sector in 2019 were women, while this number

1 Faculty of Economics University of Belgrade, FREN

2 The share of tourism in the world GDP represents the part of the world GDP, shown in %, which was realized by all sectors of the economy that provide services to tourists. This includes products that are produced in other sectors and consumed in tourism. The direct participation of world tourism in world GDP is around 3.6%.

3 https://www.unwto.org/news/tourism-set-to-return-to-pre-pandemic-levels-in-some-regions-in-2023#:~:text=According%20to%20new%20data%20UNWTO,increases%20in%20international%20tourist%20numbers.

4 WTTC, Global Economic Impact and Trends 2021

in the total world economy in that year was 39%[5]. And finally, tourism contributes the most to the image of the country in the world, contributing to the marketing of the country without direct marketing costs.

A large number of countries, including Serbia, during and after the COVID-19 pandemic decided on budget support for the tourism sector in order to save this sector and avoid a strong slowdown, so that after the pandemic this sector would recover as soon as possible and return to its pre-pandemic trend. Three years after the outbreak of the pandemic tourism in a large number of countries is close to the pre-pandemic level, with certain structural differences, primarily in terms of the distance of tourists from the tourist destinations they visit.

Characteristics of the recovery of the tourism sector in European countries

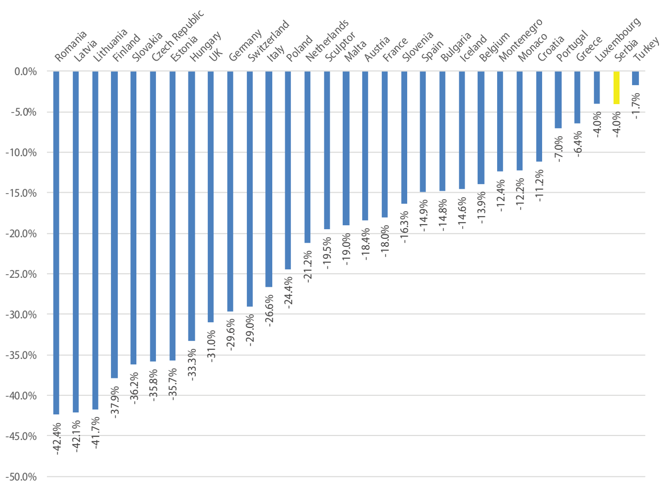
At the European level, the recovery is primarily based on "shorter" trips, while trips from destinations over 4,000 km are still significantly below the pre-pandemic level[6]. Observed according to the number of international arrivals in 2022 compared to 2019, Turkey recorded the best result among the observed countries, with only 1.7% fewer international arrivals in 2022 compared to 2019.[7]

Turkey is one of the most important tourist destinations in Europe, so its rapid recovery is not particularly surprising. The difference compared to other significant tourist destinations lies in Turkey's significant price competitiveness compared to other destinations due to the strong depreciation of the Turkish lira in 2022. Turkey recorded a relatively strong increase in tourists in 2022 compared to 2019 from countries such as Great Britain, the United States of America, France and Canada.

The worst results compared to 2019 were recorded by Romania (-42.4%), Latvia (-42.1%), Lithuania (-41.7%) and Finland (-37.9%), which are in in the immediate vicinity of the Russian-Ukrainian conflict.

Serbia represents the absolute champion of the recovery of the tourism sector if we look at the number of overnight stays recorded in 2022 compared to 2019 by international tourists (Graph 2). Compared to 2019, that number increased by 23%. The data on the number of international arrivals and international overnight stays set Serbia apart from the other observed European

Graph 1. The difference in the number of international arrivals to the observed European countries, 2019-2022, in %



Izvor: IMF, World Economic Outlook Database, April 2021

countries individually, but also when viewed together. Namely, Serbia recorded a significant increase in the number of overnight stays (23%) with a recorded decrease in the number of arrivals (-4), so the difference between these two indicators is as much as -27%. The next largest difference is recorded by Italy with -11.9%, while in most other countries this difference ranges from 1 to 6%. In other words, the number of overnight stays after the arrival of a foreign tourist has increased significantly in Serbia. A possible reason for the increased number of overnight stays by tourists in Serbia is certainly the improvement in the quality of hotel accommodation, as well as the reduction in the number of nights that tourists from certain countries can spend in other European countries, which primarily refers to Russian citizens. On the other hand, Serbia probably represents a place of transit to developed European countries where tourists stay until they secure entry to other countries.

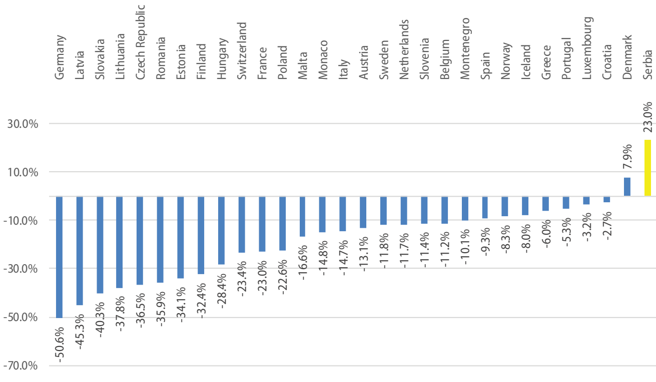
The biggest losers in the number of international overnight stays in the period 2019-2022 are Germany, Latvia and Slovakia (Graph 2). It is interesting to mention that Germany records worse results in the recovery of the tourism sector than other European countries, in terms of the number of international overnight stays, since the COVID-19 pandemic due to a significant decrease in arrivals and overnight stays primarily from Great Britain, and then also from France, Italy, and the United States of America.

5 World Tourism Organization (UNWTO), Global Report on Women in Tourism: Second Edition – Key Findings, 2019.

6 European Travel Commission, European Tourism: Trends & Prospects, February 2023

7 European Travel Commission, European Tourism: Trends & Prospects, February 2023

Graph 2. The difference in the number of international overnight stays in the observed European countries, 2019-2022, in %



Source: European Travel Commission, the author's calculation based on SORS data for Serbia

Characteristics of the recovery of tourism sector in Serbia

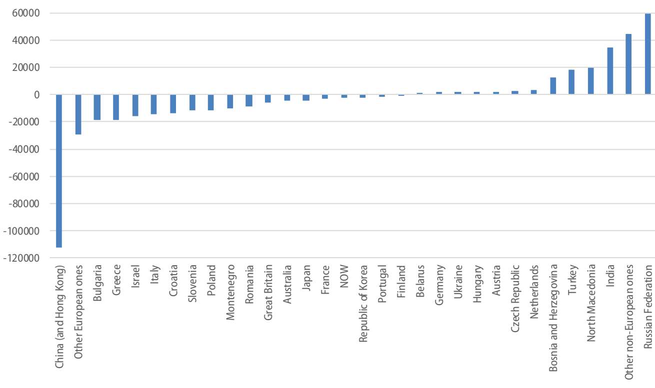
International tourism

The recovery of Serbian tourism should first of all be observed on the basis of the number of international tourist arrivals. The number of 73,788 foreign tourist arrivals less in 2022 than in 2019 represents the reached level of 96% of the pre-pandemic level, which places Serbia at the very top of European countries in terms of the recovery of international tourism.

A deeper analysis indicates that this good result is largely the result of relatively mild general restrictions for the entry of tourists from other countries into Serbia. Apart from mild general restrictions, Serbia had more favorable conditions for citizens of Russia (increased number of tourists by 59,322), India (increased number of tourists by 34,695), etc. These figures certainly include citizens of foreign countries who temporarily moved to Serbia (due to the war in Ukraine or as transit to the countries of the European Union), and which statistics record as tourists, that is, which are included in the E-tourist system used by accommodation facilities. With the growth of tourist arrivals from these two countries, Serbia managed to largely compensate for the decline caused by travel restrictions for Chinese citizens, which the other observed European countries failed to do.

Most of the other countries from which traditionally the largest number of tourists come to Serbia have reduced the number of arrivals compared to 2019 (Graph 3).

Graph 3. The difference in the number of foreign tourist arrivals from the observed countries, 2019-2022

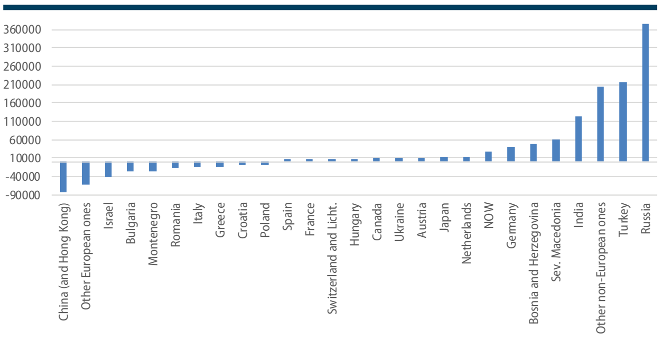


Source: Author's calculation based on SORS data for Serbia
Note: Due to the visibility of the table countries whose changes (positive or negative) are less than 1000 arrivals are not shown in the table.

The increased number of Russian tourists in Serbia had a significant negative impact on the recovery of tourism in European countries which had the most visits from Russian tourists before the war. Thus, the number of foreign tourist arrivals in Finland recorded a drop of 38%, while the drop in Lithuania, Latvia and Romania amounted to as much as 42%[8].

The largest decrease in the number of overnight stays by foreign tourists in Serbia in the observed period, as expected, came from China (-82,320). A large number of reductions in overnight stays also came from Israel (-42,638), Bulgaria (-27,282) and Montenegro (-26,409). On the other hand, citizens of Russia had the greatest positive impact with over 373,968 overnight stays more than three years ago, which is an increase of 170% compared to 2019. Citizens of Turkey (214,878) and India (122,581) also had a significantly larger number of overnight stays in Serbia compared to 2019 (Graph 4).

Graph 4. The difference in the number of overnight stays of foreign tourists from the observed countries, 2019-2022



Source: Author's calculation based on SORS data
Note: Due to the visibility of the table, countries whose changes (positive or negative) are less than 5000 arrivals are not shown in the table.

8 European Travel Commission, European Tourism: Trends & Prospects, February 2023

It is interesting that the number of overnight stays by Japanese citizens in Serbia in 2022 compared to 2019 increased by over 11 thousand, while the number of Japanese tourist arrivals decreased by over 4 thousand. Behind these data is the fact that the number of overnight stays upon arrival of Japanese citizens increased from 2.6 days in 2019 to 11.1 days in 2022. The number of overnight stays of citizens upon arrival in almost all other observed countries did not change by more than one day.

It is also interesting that the number of overnight stays upon arrival of Russian citizens increased by only 1.4 days. This data is probably the result of the fact that a significant number of Russian citizens stay in tourist accommodation only until they find private accommodation that operates in the gray zone, i.e., in which foreign citizens are not registered as tourists, so the official statistics did not manage to include the additional overnight stays in this type of accommodation.

International and domestic tourism in Serbia

Tourist traffic at the end of 2022 indicates a complete recovery of the tourism sector from the consequences of the COVID-19 crisis, if domestic and foreign tourists are considered.

In Serbia, the number of tourist arrivals in tourist places in 2022 compared to 2019 increased by 179,252 arrivals, i.e., 5%. The region of Vojvodina recorded the best results with a growth of 126,192 arrivals, i.e., 22%. The growth at the level of Serbia is a consequence of the increase in the number of Serbian citizens moving within the country by 253,040, while the number of foreign tourist arrivals in Serbia compared to 2019 was lower by 73,788.

The aforementioned results were not achieved in the same structure of tourist traffic within the country. In other words, certain tourist places managed to recover from the consequences of the pandemic faster than others, some of them managed to establish themselves as the main tourist destinations in Serbia, while some places lost the long-standing trust of both domestic and foreign tourists and greatly damaged their position on the tourist map of Serbia.

For the analysis of the development of tourist destinations in the last three years and the success of the recovery from the pandemic, the statistics of the number of overnight stays shows much more important statistics. The number of overnight stays in Serbia increased compared to the pre-crisis year by as many as 2.2 million overnight stays, i.e., 22%. It is very important to note that this growth is very well distributed between foreign and domestic tourists, where the growth of overnight stays recorded similar rates of 23% and 21%, respectively.

The statistics indicates a lower number of foreign guest arrivals, by slightly less than 74 thousand, which indicates a higher number of days of stay per arrival of foreign tourists in 2022 compared to 2019. This indicator can be a good indicator of the growth of the quality of accommodation services in Serbia and accompanying events. However, one should be careful when drawing conclusions about the growth in the quality of services, taking into account that a part of tourist arrivals and overnight stays refers to atypical tourists, i.e., to citizens of foreign countries who are fleeing war or are in Serbia only in transit to European countries. This group of "tourist" spends a long time in accommodation facilities waiting for transfer to the countries of the European Union, resolution of the situation in Ukraine or resolution of the issue of their residence in Serbia.

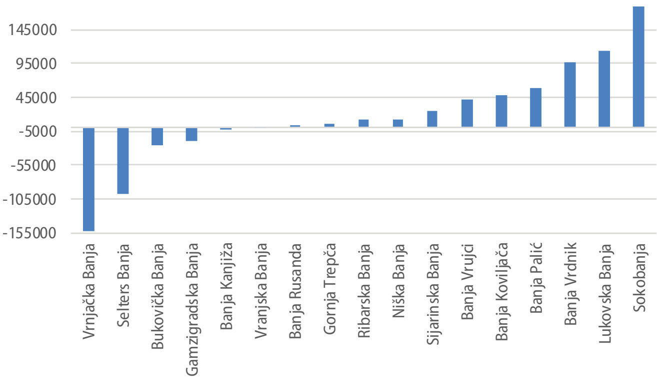
As is the case with the number of guests, in terms of overnight stays, the region of Vojvodina recorded the highest growth, as much as 40%, primarily on the basis of foreign tourists who achieved a higher number of overnight stays in the region of Vojvodina in 2022 compared to 2019, by 54%. The largest increase in overnight stays by domestic tourists was recorded in the region of Southern and Eastern Serbia (of 37%).

Spas recorded a growth of 10% (273,117 overnight stays), primarily due to the increase in the number of domestic tourists, while the number of overnight stays by foreign tourists was almost at the same level as in 2019 (-784 overnight stays less). Among the spas, Sokobanja recorded the largest increase of 179,303 overnight stays more than in 2019, solely due to the increase in domestic tourist overnight stays of 208,502 (39%), as the number of foreign tourist overnight stays decreased by 29,199 i.e., -61%.

Vrnjačka Banja recorded the biggest decline, with 151,750 overnight stays less than in 2019 (98,154 fewer overnight stays by domestic and 53,596 fewer overnight stays by foreign tourists).

Spas which also recorded significant results in the last three years, that is, they recovered the fastest from the crisis and increased their results, are Lukovska Banja with an increase in the number of overnight stays of 113,544, Banja Vrdnik 96,991 and Banja Palić 59,438. In addition to Vrnjačka Banja, Selters Banja also recorded a significant negative balance in the number of overnight stays - 97,967 less overnight stays than in 2019 (Graph 5).

Graph 5. Difference in the number of overnight stays in spas, 2019-2022



Source: Author's calculation based on SORS data

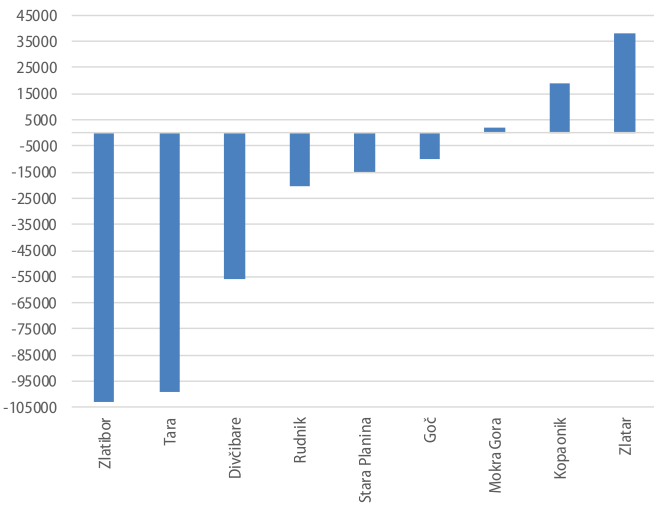
Mountains[9] recorded a decline in the number of overnight stays of 12%, or 244,040. Most responsible for this decline was Zlatibor, with 103,205 less overnight stays compared to 2019. This result is primarily a consequence of the decrease in the number of domestic tourists by 13%, while the number of foreign tourists decreased by 4%. The number of overnight stays on Tara was 99,237 less than three years ago, while the number of overnight stays on Divčibare was 55,814 less. Zlatar Mountain recovered best from the crisis and in 2022 recorded an increase of 38,242 overnight stays compared to 2019.

Kopaonik increased the number of overnight stays by slightly more than 19 thousand compared to 2019, based on the growth in the number of domestic tourist overnight stays, while the number of foreign tourists overnight stays slightly decreased. Under normal winter season conditions Kopaonik would probably achieve much better results, given that in December the number of overnight stays decreased by almost 20 thousand compared to the previous year due to very unfavorable conditions for the winter season. Only in the first two months of the winter season, December and January (for which there is official data), the number of overnight stays on Kopaonik decreased by 38,280.

Almost all cities in Serbia monitored by tourism statistics have recovered from the crisis. The most important result was achieved by the City of Belgrade with an increase of 484,145 overnight stays. It is particularly significant that the number of foreign tourist overnight stays has increased by over half a million overnight stays. The number of overnight stays by domestic tourists in Belgrade is slightly lower compared to 2019 (-5%). This decrease in the number of overnight stays in Belgrade by domestic tourists is also the only decrease when we look at larger cities (Belgrade, Novi Sad, Niš, Kragujevac and Sombor). All these cities increased the number of overnight stays by both domestic and foreign tourists.

9 Zlatibor, Kopaonik, Tara, Mokra Gora, Divčibare, Zlatar, Rudnik, Stara Planina, Goč

Graph 6. The difference in the number of overnight stays on mountains, 2019-2022



Source: Author's calculation based on SORS data

Conclusion

The recovery of the tourism sector is questionable in the coming years due to the emerging economic crisis, which is currently characterized by high inflation rates, slowing growth of world economies and rising interest rates. In addition, the world is currently facing significant geopolitical problems. These factors not only affect the possibilities of travel, but also the attitudes and mindset of tourists about locations and the financial aspect of travel. A positive factor is the growth of people's awareness of the importance of travel, vacations and exploring different cultures, which has been present in the last decade and has not been significantly changed by the consequences of the pandemic.

In the period of recovery from the crisis, the providers of tourist services are also faced with the rising prices of energy, food and other inputs. In addition, the rising costs of living and housing affect not only the reduction of the available budget of potential tourists, but also put pressure on the costs of workers in the tourism sector and thus on rising labor prices and labor shortages.

In these conditions, the recovery of the tourism sector is expected in the coming years. Whether it will happen depends to a large extent on the length and intensity of the current economic crisis, as well as the resolution of significant geopolitical conflicts, primarily the war in Ukraine.

After three years of the outbreak of the COVID-19 crisis, China announced the opening of its borders, so the influx of Chinese tourists represents one of the most significant potentials in 2023, especially considering that the Chinese market was the world's largest tourist market in 2019, i.e., the largest number of world tourists came from China. As a large number of countries are expected to maintain or tighten the COVID-19 regulations for citizens from China after the opening of the borders, Serbia can make significant use of this potential and possibly compensate for the decrease in the influence of Russian tourists as a result of the possible introduction of sanctions towards Russia.

Currently, the relatively small but available booking data shows that Chinese travelers continue to choose to travel within the country. In 2023, it is predicted that trips from China to European destinations will remain at 60-70% of the pre-pandemic level, and that the return to the pre-pandemic level will be reached in 2026. By returning to the pre-crisis level, Serbia would regain as many as 82 thousand nights spent by Chinese citizens, and given that countries will probably keep stricter conditions for arrival of Chinese citizens than Serbia the potential is even greater. On the other hand, Serbia faces a potential decrease in the inflow of Russian tourists, if political decisions in 2023 introduce stricter conditions for the entry of Russian citizens into Serbia.

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