2. Economic Activity

In Q3, there was a rather strong slowdown in economic activity. The achieved year-on-year GDP growth of 1% was significantly lower than in the first half of the year, when it was 4% (4.2% in Q1 and 3.8% in Q2). At the same time, the seasonally adjusted GDP shows that in Q3 there was a decrease in production by 0.7% compared to Q2. Worse results of economic activity in Q3 compared to the first half of the year were expected and we announced them in the previous edition of QM. Namely, inflation continued to grow, which reduced the real income of the population and consequently private consumption, industrial production has been on a downward trend for some time, as well as total investments in the country. Also, there is a broader trend of slowing down economic activity at the level of the whole of Europe, including the CEE countries - which certainly has a significant impact on developments in Serbia as well. Comparable CEE countries, despite a relatively strong slowdown in economic activity, on average still achieved noticeably better results than Serbia. GDP growth in CEE countries in Q3 averaged 3.4%, and in the first nine months of 2022 it was 5.3% (compared to 3% in Serbia). These data are rarely heard in public, where biased assessments still prevail that Serbia was among the champions of economic growth in Europe during 2020 and 2021. However, when 2022 is taken into account, Serbia's results in the previous three years are no longer so impressive. After the data for Q3 have been published, we can estimate the economic growth of Serbia at the level of the entire year 2022 with a bit more confidence than before - and it will amount to about 2.5%. The Government has an identical assessment and uses it in its latest documents. When it comes to 2023, QM's current forecast is that GDP growth could be around 2%. This would basically be the sum of the growth of the largest part of the economy of about 1.5%, with an additional contribution of agriculture of about 0.5 p.p. (recovery from the drought is expected in 2023). This forecast for 2023 is close to the expectations of the Government of Serbia (2.5%), as well as relevant international institutions (IMF 2.25%, European Commission 2.4%). Of course, in times of increased uncertainty (war in Ukraine, energy crisis, etc.), forecasts for 2023 are less reliable than under normal circumstances and should be treated as conditional and indicative - as was the case in the previous few years.

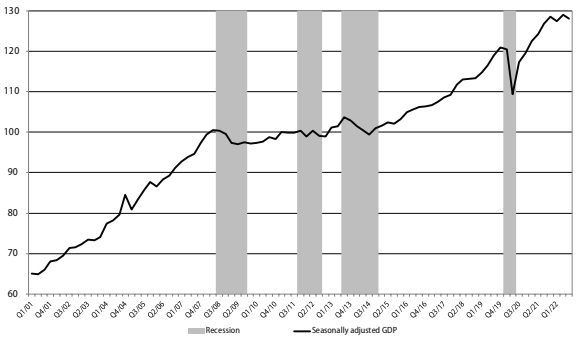
Year-on-year GDP growth in Q3 was 1%, so economic growth of around 2.5% will be achieved in 2022

According to the latest estimates of the SORS, the year-on-year growth of Serbia's GDP in Q3 was 1%, which represents a decrease in the year-on-year growth rate by as much as 2.8 p.p. compared to Q2 (when the GDP growth was 3.8%). In the first nine months of 2022, GDP growth compared to the same period in 2021 amounted to 3% - and had a clear trend of slowing down during the year. Year-on-year GDP growth of 4.2% was achieved in Q1, 3.8% in Q2 and now 1% in Q3. If in the last, fourth quarter of 2022, a similar GDP growth rate as in Q3 of around 1% is repeated (which is a realistic expectation) - GDP growth at the level of the whole of 2022 will amount to 2.5%. This is significantly lower economic growth compared to the previous year, 2021, but also compared to the expectations with which we entered 2022. We remind you that at that time forecasts of the Government, relevant international institutions (IMF, European Commission and others), as well as QM, were that the economic growth of Serbia in 2022 will be around 4.5%. The most important reasons for worse economic results in 2022 than expected are mostly obvious. These are the outbreak of war in Ukraine with consequent sanctions against Russia, further increase in inflation, the energy crisis (which in Serbia was further aggravated by the catastrophically bad management of public enterprises), as well as the slowdown of the economies of EU countries and regions with which the economy of Serbia is closely connected.

In Q3, seasonally adjusted GDP fell by 0.7% compared to the previous quarter

Short-term trends in economic activity in Serbia can be better monitored w the seasonally adjusted GDP index, which is shown in Graph T2-1. This shows that after a major short-term shock in Q2 2020 due to the outbreak of the health crisis (and the state of emergency), economic activity quickly established a fairly high and stable growth that lasted until the beginning of 2022. Since then, however, under the influence of numerous internal and external factors, the movement of seasonally adjusted GDP has become significantly more unstable on a quarterly

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

basis. More specifically, firstly, in Q1 2022 seasonally adjusted fall in GDP of 0.8% was realized compared to Q4 2021, then in Q2 2022 a growth of 1.2% was realized compared to Q1, so that, according to the latest data, in Q3 there was again a quarterly drop in seasonally adjusted GDP of 0.7% (Graph T2-1). When the aforementioned oscillations are removed, it is indisputable that from the beginning of 2022 there has been a strong slowdown in economic growth, so far without the start of recession. In this regard, we still do not interpret the drop in seasonally adjusted GDP that occurred in Q3 as a hint of a deeper and more permanent recession, but rather as stability in the general trend of a strong slowdown in economic growth. Of course, in such turbulent times it is difficult to make any forecasts, but we once gave an estimate similar to this one for the movements of seasonally adjusted GDP in Q1 2022, and it turned out to be correct.[1]

In Q2, there was a significant slowdown in the growth of services with a decline in industry and construction activity

In Table T2-2, we have presented data on the year-on-year growth of Serbia's GDP by production principle, i.e. by individual sectors of the economy. We also essentially announced the changes that took place in Q3 in the previous edition of QM (although we could not quantify them with complete precision). In short, the expected noticeable slowdown in the growth of services was realized under the influence of the acceleration of inflation as well as due to the reduction of space for the continuation of the accelerated post-crisis recovery of tourism and transport (which had the deepest decline during the health crisis). The heterogeneous grouping of service sectors that are presented together in the quarterly national accounts (trade, transport and tourism) had a year-on-year growth of 5.1% in Q3, which was reduced by 3 p.p. compared to the previous quarter. Industry, after a solid growth in Q2, moved as expected in Q3 to the zone of a slight year-on-year decline of 0.3%, while construction activity deepened its decline (which it has been recording throughout 2022) to 12.4%.

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

	Y-o-y indices												
	2017	2018	2019	2020	2021	2021				2022			Share
						Q1	Q2	Q3	Q4	Q1	Q2	Q3	2021
Total	102.1	104.5	104.2	99.1	107.5	101.7	113.8	107.8	107.2	104.2	103.8	101.0	100.0
Taxes minus subsidies	102.2	105.5	103.5	97.7	108.3	99.3	116.7	109.1	108.1	107.9	104.9	102.2	17.3
Value Added at basic prices	102.1	104.3	104.4	99.4	107.4	102.2	113.2	107.5	107.1	104.2	103.8	101.0	82.7
Non agricultural Value Added	103.3	103.4	104.9	99.2	108.5	102.7	114.6	108.9	108.2	103.4	103.5	100.7	92.4[2]
Agriculture	88.6	115.1	98.4	102.3	94.3	94.1	94.6	94.4	94.2	92.5	92.2	92.3	7.6[2]
Industry	102.6	100.9	100.4	100.5	106.3	104.4	115.7	102.3	104.0	102.0	104.6	99.7	21.6[2]
Construction	105.4	112.4	133.7	96.7	117.6	119.8	118.3	119.4	114.4	94.4	92.9	87.6	7.3[2]
Trade, transport and tourism	105.2	106.3	106.0	94.7	114.3	102.4	128.9	114.9	112.7	111.8	108.1	105.1	20.0[2]
Informations and communications	103.7	105.4	108.3	108.7	104.9	104.9	106.4	103.7	104.8	105.3	105.2	108.1	6.2[2]
Financial sector and insurance	101.0	107.5	102.3	104.6	109.4	110.0	110.1	109.1	108.3	102.1	102.3	102.6	3.9[2]
Other	102.5	101.5	102.6	98.8	105.5	97.8	108.0	108.8	107.7	103.9	104.8	102.2	33.5[2]

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

The dry year reduced GDP growth in the entire 2022

Other sectors of the economy in Q3 mostly continued with similar results as in the first half of the year. Due to the drought, agriculture recorded a decline in the whole of 2022 of about 7.5%, which is an important figure since it noticeably reduced the growth of Serbia's total GDP in 2022 (by about 0.5 p.p.), and is a consequence of the extraordinary circumstances that will probably not happen again in 2023. Financial activities continue with a similar movement that they had during the first half of the year, which concretely means with a growth of around 2.5%. In Q3,

1 For more details see *QM*68, section: "Economic activity".

there was also a slightly higher than usual growth of the Information and Communications sector (which refers mainly to telecommunications and the IT industry). This sector had a growth of 8.1% in Q3, which is noticeably higher than about 5%, which was achieved in the first half of the year. In the long term, information and communications have been recording high and stable growth rates (which did not slow down even during the health crisis), and we will see in the coming quarters whether the slightly better results in Q3 were a temporary oscillation on this fundamentally positive trend, or there was a new growth impulse in this sector. It is possible, for example, that the better results of this sector of the economy are influenced by the increased influx of immigrants from Russia who moved their businesses to Serbia, but this can be more reliably assessed only in a few quarters. It is also interesting to note that this sector of the economy, with its rapid growth in the previous decade (especially in the area of computer programming), exceeded the participation of 6% in the total gross added value of the economy, and after 2022 it will be at the level of around 6.5% of GDV. - which already approaches the level of standard participation in GVA of traditional activities such as construction activity or agriculture, and is significantly higher than the financial services sector (which includes banking, insurance, private pension insurance funds and the like).

In Q3, 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 Q3 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 3.1% in Q3, which represents its further gradual slowdown compared to previous quarters. We see the reason for this trend of slowing growth of private consumption primarily in the increase in inflation. Government spending in Q3 had a year-on-year drop of 4.5%, which was mainly the result of a strong year-on-year decrease in government expenditures for the procurement of goods and services. Expenditures for goods and services of the Government in previous years were unusually volatile since, due to the corona virus pandemic, procurements in healthcare were occasionally strongly and extraordinarily increased (for example, state consumption in Q3 2021 had a strong year-on-year growth of 9.3%, precisely due to the high growth of expenditure on goods and services). For this reason, occasional, relatively strong y-o-y oscillations in the movement of government spending are not unexpected and do not represent a permanent trend. In addition, high inflation affected the real reduction of wages in the public sector, which also reduced government spending. As for investments, they, under the influence of a strong decline in construction activity, for the first time since 2020 recorded a year-on-year decline, which was estimated at 2.2%. It is also important to note that the total decline in investments of 2.2% is significantly lower than the estimated decline in construction activity (12.4%), which means that the economy still maintains a solid growth in investments in machinery and equipment. Finally, in Q3, net exports contributed positively to GDP growth for the first time in a year and a half due to faster real growth of exports (14.9%) than imports (7.8%). The movement of net exports in 2022 is very difficult to analyze and predict because it is under significant influence of changes in the prices of export and import products, thus oscillations, such as those occurred in Q3, are not a surprise.

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

	Y-o-y indices												
	2017	2018	2019	2020	2021	2021				2022			Share
						Q1	Q2	Q3	Q4	Q1	Q2	Q3	2021
GDP	102.1	104.5	104.2	99.1	107.5	101.7	113.8	107.8	107.2	104.2	103.8	101.0	100.0
Private consumption	102.2	103.1	103.6	98.1	107.7	98.1	117.2	108.3	107.5	106.9	103.9	103.1	66.0
Government	102.9	103.7	102.0	102.8	104.1	101.7	98.5	109.3	107.2	102.7	104.6	95.5	16.9
Investment	106.6	117.5	117.2	98.1	115.9	111.5	125.1	115.6	113.0	101.2	101.8	97.8	23.1
Export	108.2	107.5	107.7	95.8	119.5	108.6	136.3	122.5	114.0	119.9	120.7	114.9	54.5
Import	111.1	110.8	110.7	96.4	117.7	98.5	142.4	121.2	113.8	130.7	120.2	107.8	62.3

Source: SORS

In Table T2-4, in addition to Serbia, the y-o-y GDP growth rates in the EU 27 and especially in the CEE countries are shown[2]. The Table shows that the entire EU and CEE countries had

2 In addition to the CEE11 EU member countries, our data also includes the countries of the Western Balkans.

Other CEE countries also slow down their economic growth in Q3, but continue to achieve noticeably better results than Serbia

higher economic growth than Serbia in Q3 (2.4% and 3.4%, respectively). The reasons why CEE countries and even the entire EU achieve faster economic growth than Serbia in 2022 were discussed in detail in previous editions of QM[3]. In short, we see the explanation for these results in the fact that Serbia had a different dynamic of recovery from the crisis compared to most other European countries. Namely, the analyzed data indicate that in Serbia the effect of recovery from the crisis started earlier and more strongly than in most other European countries, but was mostly exhausted by the end of 2021. On the other hand, in the EU and CEE countries, there is still a relatively large space for recovery in 2022. In addition to this, the worse results of Serbia in 2022 are also affected by the dry season (especially since Serbia has a higher share of agriculture in GDP than other European countries). Finally, we should definitely mention the huge problems in the operations of public companies from the energy sector that are happening in Serbia, which have directly slowed down industrial production and multiplied the negative effect of the energy crisis on the country's net exports.

When you look at the previous two and a half years - since the outbreak of the health crisis in 2020 - you can see that the economy of Serbia in the first two years of the crisis (2020 and 2021) achieved the best result in CEE and one of the best results in the whole of Europe. Namely, in 2020, Serbia had a significantly smaller decline, and then in 2021, faster economic growth than most European countries (Table T2-4). This was also the information with which state officials often and uncritically went public. However, as we have already mentioned, a good part of these results rested on transitory and specific factors - such as differences in the structure of the economy and earlier easing of anti-epidemiological measures in Serbia. These analyzes are now confirmed by the trend of GDP in 2022, where Serbia has below-average results compared to the rest of CEE. If the entire period from the outbreak of the crisis, ending with the year 2022, was observed, Serbia would not deviate much from the average of the CEE countries. Better cumulative economic results than Serbia in the previous three years were achieved, for example, by Slovenia, Croatia and Poland.[4]

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

	Y-o-y indices										
	2018	2019	2020	2021	2021				2022		
					Q1	Q2	Q3	Q4	Q1	Q2	Q3
Serbia	4.5	4.2	-0.9	7.5	1.7	13.8	7.8	7.2	4.2	3.8	1.0
EU27	2.1	1.9	-5.7	5.6	-0.8	14.0	4.2	4.9	5.7	4.3	2.4
CEE (weighted average)	4.5	4.1	-3.4	6.3	-0.4	12.6	6.5	6.5	7.7	4.8	3.4
Albania	4.0	2.1	-3.3	8.5	4.2	17.6	6.8	5.5	6.5	2.2	:
Bosnia and Herzegovina	3.7	2.8	-3.0	7.6	3.3	12.1	7.5	7.5	5.8	5.9	:
Bulgaria	2.7	4.1	-3.9	7.4	3.7	7.1	8.6	10.2	4.4	3.9	2.9
Montenegro	5.1	4.0	-13.3	12.1	-5.6	16.9	27.9	9.3	4.6	13.6	:
Czech Republic	3.2	3.0	-5.4	3.6	-2.3	9.5	3.5	3.6	4.9	3.5	1.7
Estonia	4.1	3.8	-0.6	8.1	2.5	13.9	8.4	7.4	4.5	0.4	-2.4
Croatia	2.9	3.5	-8.3	13.1	2.6	20.8	16.7	12.2	7.8	8.7	5.2
Latvia	4.0	2.6	-2.2	4.0	-0.9	9.8	4.5	2.7	5.6	2.9	-0.6
Lithuania	4.0	4.6	0.0	6.0	2.8	9.1	5.6	6.5	4.8	1.7	2.0
Hungary	5.4	4.6	-4.5	7.3	-2.2	17.8	6.2	7.4	8.2	6.5	4.0
North Macedonia	2.9	3.9	-6.1	4.2	-1.8	13.4	3.0	2.3	2.4	2.8	2.0
Poland	5.4	4.8	-2.0	6.8	-0.8	11.3	7.4	9.4	10.5	5.2	4.4
Romania	4.5	4.2	-3.5	5.5	-0.4	15.3	5.6	1.3	6.4	5.1	4.0
Slovakia	3.8	2.7	-3.4	3.1	-0.1	9.9	1.4	1.3	2.9	1.3	1.4
Slovenia	4.4	3.3	-4.3	8.4	1.6	16.2	5.1	10.5	9.7	8.3	3.4

Notes: data for Q1 for three countries have not been published yet: Albania, Bosnia and Herzegovina and Montenegro
Source: *QM* based on Eurostat data

A slowdown in economic activity is evident throughout Europe

Comparative data also show widespread signs of a slowdown in economic activity in Europe. Economic growth at the EU level in Q1 was 5.7%, and by Q3 it had already decreased to 2.4%. At the same time, seasonally adjusted GDP growth in Q3 compared to Q2 slowed to 0.4% (annualized 1.6%), which is its lowest value in the previous year. In the previous quarter (Q2), seasonally adjusted GDP growth in the EU was 0.7%, which means that seasonally adjusted

3 For more details, see for example *QM*68, section "Economic activity".
4 Here, we used cumulative annual GDP growth in 2020, 2021 and the first three quarters of 2022 as a criterion. Another criterion that could also be used is how much seasonally adjusted GDP in Q3 2022 was higher than seasonally adjusted GDP from Q4 2019, i.e. before the outbreak of the health crisis. In that case, Romania, Hungary and Lithuania would also have better results than Serbia.

GDP growth in Q3 was almost halved. The same applies to CEE countries, where the y-o-y growth rate decreased from Q1 to Q3 from 7.7% to 3.4% (Table T2-4). Seasonally adjusted GDP growth in Q3 compared to Q2 was in CEE similar to that of the entire EU and amounted to an average of 0.5% (annualized 2%). However, it is also important to note that in 6 out of 11 CEE countries (for which there are data), there was a drop in seasonally adjusted GDP in Q3 compared to Q2. The average result of the entire CEE remained positive despite this, because this happened mostly in smaller countries (Estonia, Latvia and others), while the largest CEE economies such as Poland and Romania had seasonally adjusted production growth in Q3. However, it is clear that the economic trends in Europe, including CEE, are gradually worsening and in the coming quarters we will see whether everything will end in slow economic growth (as in Q3) or there will be a recession.

We are currently forecasting that the GDP growth of Serbia in 2023 could be around 2%

Economic trends in Serbia are currently very unstable, which is well illustrated by the Graph T2-1, which shows the trend of seasonally adjusted GDP. At the same time, it is not only difficult to assess the current economic trends in Serbia, but it is also impossible to predict what 2023 will bring in terms of further development of war in Ukraine, the movement of energy and food prices, and more. Because of this, all forecasts of the economic growth of Serbia in 2023 are currently very difficult. Our best current forecast starts from a GDP growth rate of 1% with which we expect 2022 to end. As we mentioned, within this result, the largest part of the economy achieves a growth of about 1.5%, while the dry year affected a one-time drop in agriculture of about 7.5% (which negatively contributes to the overall GDP growth with 0.5 percent points). Looking ahead, we currently expect that in 2023, most of the economy will maintain a similar growth rate from the end of 2022 of around 1.5%, while the recovery of agriculture from the drought could raise the overall GDP growth rate to around 2%. This forecast is close to the expectations of relevant domestic and international institutions. The Government of Serbia created the budget with the assumption of economic growth of 2.5%, the forecast of the European Commission is that the GDP growth of Serbia in 2023 will amount to 2.4%, while the forecast of the IMF is 2.25%. Of course, all these forecasts cannot be treated as reliable, but as conditional and indicative, and it is possible that they will be revised a lot during the next year - as happened in the period from 2020 to 2022.

Industrial production

In Q3, industrial production achieved a slight year-on-year decrease of 0.5%

In the first half of 2022, industrial production in Serbia had moderate growth, but as a consequence of completely divergent movements in three separate sectors that make it up. Mining achieved a high growth of 30%-40%, processing industry a moderate growth of 4%-5%, and electricity production a relatively deep decline of 10%-20% (Table T2-5). In Q3, however, there were significant changes. First of all, the result of total industrial production worsened, as there was a slight drop in total industrial production of 0.5%. At the same time, the divergence in the movement of individual industry sectors significantly decreased. Mining slowed its growth to around 10%, the processing industry, after moderate growth in the first half of the year, moved into the zone of year-on-year decline, while electricity production reduced its decline to around 4% (Table T2-5). These changes were mostly expected.

Table T2-5. Serbia: Industrial Production Indices, 2017-2022

	Y-o-y indices													Share
	2017	2018	2019	2020	2021	2021				2022				2021
						Q1	Q2	Q3	Q4	Q1	Q2	Q3	October	
Total	104.2	101.4	100.3	100.5	106.4	104.1	117.4	102.6	103.8	101.9	104.8	99.5	99.9	100.0
Mining and quarrying	102.2	95.2	101.2	102.7	127.6	100.9	125.3	140.6	143.0	139.0	133.0	109.2	118.4	11.7
Manufacturing	106.6	102.0	100.2	100.1	105.6	103.0	119.3	100.3	103.0	104.1	104.8	99.1	98.0	72.6
Electricity, gas, and water supply	94.1	101.2	100.5	101.0	100.7	109.1	107.5	96.1	90.6	80.9	91.9	95.9	98.8	15.6

Source: SORS

The phase of a very high growth in mining is coming to an end, but this sector will probably have growth rates of around 10% for a while longer

The extremely high growth of mining started in the middle of 2021 and is a consequence of the opening of the new mine of the company Ziđin, which increased the exploitation of copper ore in the country many times over. This is clearly seen in the disaggregated data of mining, which shows that only the area of metal ore exploitation had extremely strong growth from 2021, while all other areas of mining maintained their usual results (with the fact that coal exploitation declined relatively strongly from the end of 2021, which is related to the unsuccessful operations of EPS). Due to the opening of a new copper mine, the growth of the entire mining sector from Q2 2021 to Q2 2022 was unusually high, averaging around 35% annually. As of Q3 2022, however, this growth has slowed considerably as the base against which mining results are compared has increased. Despite the understandable and inevitable slowdown of extremely high growth rates, we expect that mining will continue to achieve relatively high growth for some time, of perhaps around 10% on an annual basis, because the exploitation of copper ore will continue to gradually increase in the first few years after the opening of the mine. A new impetus to the growth of mining could come in 2024, when production should begin in a new coal mine in Kolubara. However, we will be able to assess this more reliably only when more complete information about this project is received, probably during 2023.

The year-on-year decline in electricity production is slowing due to comparison with a lower base

Unlike mining, which had a year of very high growth from Q2 2021, electricity production had a cycle of strong year-on-year decline from the second half of 2021. Namely, in the second half of 2021, there was an escalation of problems in the production of EPS, which has since been reduced by 10% to 20%. The main structural reason why EPS can no longer produce enough electricity from the second half of 2021 and during 2022 is the large drop in the quantity and calorific value of coal mined from Kolubara. EPS has been delaying the opening of new coal mines in Kolubara for years, and the existing mines have been exhausted and the quality of the coal that is now mined in them is very poor (with large admixtures of ash, sand, tailings and clay). In response to the shortage and poor quality of its own coal, EPS now temporarily imports large quantities of higher quality coal (even from Indonesia) which it mixes with low-quality coal from Kolubara. However, this not only makes the production process more expensive, it is also not efficient enough, so the production of EPS is still at a relatively low level, and the shortage of electricity has to be imported (at very high prices). This situation will remain in force until the opening of the new coal mine (which is announced at the beginning of 2024). From the point of view of short-term indicators of industrial production, in Q3 there was a decrease in the year-on-year decline in electricity production, but not because of the recovery of production, but because the results from that quarter were compared with the lower base from the previous year. In Q4, we expect that electricity production will no longer have a year-on-year decline at all, as it will be at a similar, low level as in Q4 2021. After that, in 2023 we expect a slight increase in electricity production compared to 2022, and the full recovery of production, i.e. returning to the level of 2020, should happen with the opening of new coal mines in Kolubara, which can be expected in 2024.

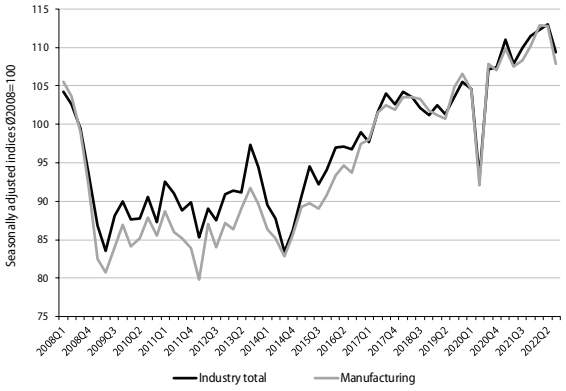
The processing industry is the main generator of the decline in total industrial production in Q3

The decrease in the year-on-year growth of mining and the mitigation of the decline in electricity production have approximately compensated for each other, and the main reason why overall industrial production had significantly worse results than in the first half of the year is the decline in the processing industry. The processing industry is the largest and most heterogeneous sector of the industry, which best describes the market trends of the entire industry. After the processing industry had a solid year-on-year growth of between 4% and 5% in the first half of the year, it decreased in Q3, by 0.9%. Available data for October (which are also presented in Table T2-5) show that the year-on-year decline in the processing industry in that month further deepened to 2%. The decrease in the processing industry from the second half of 2022 could only be attributed to one-off factors, such as, for example, the drop in the production of food products (which is certainly related to the dry agricultural season). Most of the deterioration in the trends of the processing industry in Q3 is widespread, i.e. it covers numerous areas (production of basic metals, chemical industry, production of non-metallic minerals, furniture production, etc.) and is apparently a consequence of the deeper slowdown of the domestic economy, rising input prices, as well as the slowdown of the economies of other European countries, which are the export market for the products of the domestic industry.

Seasonally adjusted indices of industrial production confirm a strong decline in the processing industry and consequently in total industrial production in Q3

We have presented the seasonally adjusted indices of industrial production (and separately of the processing industry) in Graph T2-6. These indices quantify the short-term deterioration in the industry much better than the year-on-year indices - especially since in Q3 there was a change in the base from the previous year.[5] Seasonally adjusted industrial production was reduced in Q3 compared to Q2 by 3.2%, and processing industry by as much as 4.3%. A similar decrease in industrial production in just one quarter did happen earlier, but it was very rare, as shown in Graph T2-6 which shows data from 2008. Seasonally adjusted data also unequivocally confirm that the processing industry was the main generator of the fall in total industrial production in Q3. Namely, the participation of the processing industry in the total industry is 72.6%, which means that its seasonally adjusted decline of 4.3% from Q3 contributed to the overall decline of the entire industry by 3.1%. Since the total industrial production had same seasonally adjusted decline (more precisely 3.2%), this implicitly means that the production of mining and electricity in Q3 remained at approximately the same level as in Q2, and that all the decline in total industrial production was realized precisely in the processing industry.

Graph T2-6. Serbia: Seasonally Adjusted Industrial Production Indices, 2008-2022



Source: SORS and Eurostat

In CEE countries, there are very divergent trends in industrial production in Q3, but the average result is not bad

In Table T2-7, along with Serbia, we provide comparative data on industrial production in the EU and especially in the CEE countries[6]. The Table shows that in Q3, Serbia had a noticeably lower growth in industrial production compared to the entire EU, and this difference is particularly large compared to the average of the CEE countries. More specifically, in contrast to Serbia, which had a drop in industrial production of 0.5% in Q3, industry in the EU increased production by 2.8%, and in CEE of 5.9%, in average, which is perhaps a surprisingly good result on CEE level. However, when you take a closer look at the results of individual CEE countries, you can see an unusually large stratification, which somewhat relativizes the assessment of the rather high growth of the industrial industry in CEE (on average). More specifically, on the one hand, there is a group of countries with extremely high industrial production growth – Bulgaria 15.1%, Poland 10.2%, Lithuania 9.3% and Hungary 8.9%. On the other hand, as many as six out of 13 countries (for which data are available) had a year-on-year decline in production in Q3. In previous quarters, it was common for only two to three countries to experience year-on-year declines, and in Q3 such negative trends are far more prevalent. The divergent results of industrial production by country are mainly the result of differences in the structure of the industry and, within that, especially of the available capacities for energy production. For example, the high growth of industrial production in Bulgaria, Lithuania and Poland can be largely attributed to the very high growth of electricity production, which is currently in high demand in Europe. In Bulgaria, in the first three quarters, the growth of electricity production was about 32%, in Poland about 25%, and in Lithuania almost 50%. Serbia, unlike these countries, during 2022 recorded a strong drop in electricity production due to problems in the EPS.

5 The change of the base from the previous year directly affects the y-o-y indices, but has no significant effect on the seasonally adjusted indices.

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

Table T2-7. Serbia and the CEE countries: the y-o-y growth of industrial production, 2018-2022

	Y-o-y indices										
	2018	2019	2020	2021	2021				2022		
					Q1	Q2	Q3	Q4	Q1	Q2	Q3
Serbia	1.4	0.3	0.5	6.4	4.1	16.3	2.5	3.8	1.9	4.8	-0.5
EU27	0.6	-0.7	-8.0	10.3	4.9	23.7	6.0	1.3	1.2	1.6	2.8
CEE (weighted average)	4.1	1.8	-5.3	11.6	5.6	28.9	5.8	6.2	8.1	5.7	5.9
Bulgaria	0.6	-5.5	-6.5	10.9	7.0	17.8	8.2	6.7	4.0	5.2	-0.3
Montenegro	0.0	0.7	-6.2	9.6	-0.1	15.7	9.4	12.4	17.2	18.5	15.1
Czech Republic	2.7	-0.4	-7.0	7.4	4.3	28.2	-0.1	-1.9	-0.4	-0.2	5.5
Estonia	4.4	0.2	-5.9	6.4	-0.2	15.1	7.3	5.6	4.1	3.0	-4.7
Croatia	-1.5	0.6	-3.4	6.9	5.7	13.7	3.9	4.1	2.8	2.8	2.1
Latvia	1.3	0.8	-1.8	6.5	3.7	12.6	6.3	3.5	4.0	3.6	-2.6
Lithuania	4.5	3.5	-2.4	20.0	13.2	25.0	17.8	23.9	23.5	8.7	9.3
Hungary	3.4	5.7	-7.0	11.6	5.6	36.8	2.5	1.2	5.3	4.3	8.9
North Macedonia	5.5	3.9	-9.6	2.6	-6.1	22.3	-3.5	-2.3	3.4	1.3	-1.8
Poland	5.8	4.4	-2.2	15.5	8.6	30.1	10.4	12.9	16.1	12.6	10.2
Romania	3.8	-3.2	-9.2	8.2	1.6	32.5	0.9	-2.4	-0.4	-2.6	-0.7
Slovakia	5.5	0.6	-8.8	11.8	6.5	35.8	0.9	3.9	-1.7	-4.8	-3.4
Slovenia	4.0	2.8	-6.3	10.6	3.3	24.3	6.3	7.6	5.0	2.7	2.6

Source: *QM* based on Eurostat data

Construction Activity

According to the SORS assessment, construction activity had a deep year-on-year decline of 12.4% in Q3

In Q3, the rather bad results of the construction activity, which lasted throughout 2022, continued and further worsened. The estimated year-on-year decline in construction activity GVA in Q3 amounted to 12.4% and is significantly deeper than in the first half of the year, when it was around 6.5% (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 completed construction works had a year-on-year drop of 13.5% in Q3. However, we always additionally analyze official data on construction 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 Q3, but also in the whole of 2022, is indeed in a significant decline. Namely, the decline in the construction activity shown by the official statistics was not an incident, but has been ongoing for the last three quarters, and indirect indicators are also beginning to show some deterioration (employment and wages in construction, cement production). This is why we conclude that the assessed bad trends are indisputable (although we still have reserve about the great depth of the decline in the construction activity estimated by SORS).

Indirect indicators show certain worsening trends in construction activity

As we mentioned, due to the specificity and difficult monitoring of construction activity, we use indirect indicators in addition to official data from construction statistics to assess trends in this sector. The real growth of wages of construction workers in Q3 compared to the same period of the previous year was negative and was -0.5. This represents a continuation of further deterioration compared to Q2 (1.6%) and Q1 (2.7%). The year-on-year growth of registered employment in construction in Q3 was 0.3% and it is also on the trend of a gradual slowdown (in Q2 it was 2.1%, and in Q1 3.4%)[7]. These trends in employment and wages confirm that certain negative changes in the industry are indeed taking place. Another additional indicator that we monitor to assess construction activity is the cement production index (Table T2-11). This index had a year-on-year drop of 5.7% in Q3, and at the level of the first three quarters there was a drop in cement production of about 1.5% compared to the same period of the previous year[8].

7 According to SORS, the year-on-year drop in employment in construction (which includes informal employment) in Q3 was as much as 13%. However, we take this indicator with a certain reserve since it is not overly reliable at this level of disaggregation. For example, the same indicator shows that in Q2 there was a year-on-year growth of total employment in construction of 11%. Such big changes in just two quarters are unlikely.

8 Table T2-8 shows that cement production in Q1 had a relatively high year-on-year growth of 8.1%. However, seasonally, almost half as much cement is produced in Q1 compared to Q2 or Q3. For this reason, the combined y-o-y index in the first three quarters of 2022 is more influenced by the reduced production in Q2 and Q3.

Table T2-8. 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	-	-

Source: QM based on SORS data

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

Taking everything into account, data from the labor market and the cement production index are in principle consistent with a certain decline in construction activity during 2022. However, as we mentioned, we still keep a certain reserve that this activity has such a deep decline of around 10% - which is shown by the SORS.

For the construction activity, it is currently very difficult to reliably assess existing trends, and it is even more difficult to forecast future developments. Also, 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 investments, and the construction activity is negatively affected by the start of a relatively strong increase in interest rates.