

2. Economic Activity

According to SORS data, GDP growth in Q3 was relatively high 4.8%. With this rate of economic growth, Serbia in Q3 was at the top among Central and Eastern European (CEE) countries, which achieved an average economic growth of 3.6% (only Hungary had a higher rate of economic growth than Serbia in Q3). Although government officials present this result as a success of economic policy, some important information that relativize the Q3 GDP growth is not being mentioned to the public. First, that Serbia was before this quarter, i.e. in the first half of 2019, along with Albania and Bosnia and Herzegovina, at the very bottom in CEE when comparing the rate of economic growth achieved. Therefore, on y-o-y level, despite strong Q3 acceleration, Serbia's economic growth is likely to remain below the average of comparable CEE countries. Second, the acceleration of economic growth in Q3 is a result, for the most part, of temporary factors and is therefore of short duration, and it is possible that it has not been fully reliably measured, that is, the economic growth in Q3 was actually slightly lower than presented. The rapid acceleration of economic growth was a result of the enormous growth of construction by as much as 35% (which is a consequence of the construction of the Turkish Stream pipeline), and not a result of the acceleration of a large number of economic activities. Excluding this one-off factor from the economic activity results, GDP growth in Q3 is approximately 3.7% and does not show such strong acceleration compared to the first half of the year, nor does it deviate from the results of other CEE countries. As most of the Q3 acceleration came from temporary factors, we expect the economic growth rate to slow down after the completion of this major project, that is, GDP growth will return to its usual trend of around 3.5% y-o-y in 2020 and probably be slightly lower than the forecasted 4%. Among other important trends in Q3, the most notable is that the results of economic activity in CEE countries and throughout the EU were generally slightly better than expected, although there are still some economic problems that are particularly reflected in the poor industrial output. Taking all in consideration, the GDP results in the CEE and the EU as a whole confirm in principle our assessment from previous QM issues that the slowdown in EU economic activity, that began in the second half of 2018, is not, however, an announcement of the beginning of a new recession.

Gross domestic product

Year-on-year GDP growth in Q3 accelerated to 4.8% primarily due to "Turkish Stream" construction

According to the latest SORS data, year-on-year GDP growth in Q3 was 4.8% and was significantly higher than that achieved in the first half of the year (2.8%). Such a large change in the level of economic growth is not economically common and was not indicated by anything in the first half of the year - indicating that the acceleration of economic growth in Q3 was most likely a result of some extraordinary result. That event (which is not difficult to isolate) is the construction of the Turkish Stream pipeline. Namely, the only sector of the economy that made a huge change in Q3 compared to the previous quarters is construction (Table T2-1), which had a year-on-year growth of about 35%, and within the construction, the growth of more than 50% was recorded by "other structures", which include the pipelines. Due to a significantly faster economic growth in Q3 than the one we expected in previous QM issues (at that moment, we expected GDP growth of about 3.5% in the second half of the year), we are correcting the estimate of GDP growth for the whole of 2019 upward from the previous 3.1-3.2% to a bit over 3.5%.

All sectors except construction in Q3 recorded similar growth rates as in the first half of the year

In Table T2-1, we presented data on y-o-y GDP growth by production principle, i.e. by individual sectors of the economy. As mentioned, by far the fastest year-on-year growth in Q3 in all sectors was recorded by construction 34.7%, which is an increase of over 15 p.p. compared to Q2. There was also a change compared to the first half of the year in the industry sector, which after a decline in the first half of the year, which was between 1.5 and 2%, in Q3 recorded a modest growth of 2%. All other sectors achieved approximately similar growth rates in Q3 as in the first half of the year - agriculture was at a similar level as in 2018, and service sector had an average growth

of about 5%, which is systematically significantly stronger than industry growth. In general, in Q3, as in the whole year, activities selling services in domestic market are growing relatively fast, which is the case with construction and most services, while activities that export a large part of their products, such as industry, are virtually stagnant. This growth pattern was influenced by faster growth in domestic demand than the GDP growth, but also by an excessively strong dinar.

Table T2-1. Serbia: Gross Domestic Product by Activity, 2009- 2019¹

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018				2019			Share 2018
											Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Total	97.3	100.7	102.0	99.3	102.9	98.4	101.8	103.3	102.0	104.4	105.0	105.0	104.2	103.5	102.7	102.9	104.8	100.0
Taxes minus subsidies	94.7	99.6	101.8	99.0	98.7	100.2	99.1	101.0	101.7	103.6	103.5	103.8	103.5	103.4	103.5	103.5	103.6	15.0
Value Added at basic prices	97.8	101.0	102.1	99.4	103.7	98.1	102.3	103.8	102.1	104.6	105.3	105.2	104.3	103.5	102.5	102.8	105.0	85.0
Non agricultural Value Added	97.5	101.1	102.2	100.8	102.5	97.8	102.3	103.4	103.3	103.7	104.8	104.6	103.2	102.5	102.7	103.1	105.6	92.1 ²⁾
Agriculture	100.8	99.6	100.9	83.0	121.0	102.0	102.0	108.3	88.8	115.2	112.3	115.6	116.8	115.2	100.3	99.7	99.9	7.9 ²⁾
Industry	90.7	100.3	103.8	100.6	106.6	92.1	104.2	103.5	102.8	101.0	105.5	102.4	99.0	97.5	98.6	98.0	102.0	25.7 ²⁾
Construction	87.2	92.6	114.8	101.2	82.5	101.4	116.8	107.9	105.7	112.8	126.8	120.5	110.0	102.8	109.8	118.1	134.7	5.1 ²⁾
Trade, transport and tourism	99.8	102.5	98.2	98.4	99.3	98.9	103.0	104.6	105.5	107.0	106.4	106.8	107.2	107.5	106.0	105.0	105.4	18.8 ²⁾
Informations and communications	106.5	102.9	108.2	113.7	104.3	102.8	102.6	103.7	103.8	105.5	105.0	105.9	105.6	105.6	105.5	108.0	107.7	6.0 ²⁾
Financial sector and insurance	106.2	106.6	100.9	104.6	101.1	99.6	101.2	105.4	100.9	107.5	105.8	108.5	106.1	109.9	103.5	104.3	104.2	3.7 ²⁾
Other	101.6	101.1	101.0	100.5	102.8	100.5	98.9	101.6	102.2	101.8	101.2	102.1	101.9	102.0	102.3	102.1	102.8	32.4 ²⁾

Source: SORS

1) In prices from the previous year

2) Share in GVA

There is a high investment growth, in Q3, but only because of construction

The structure of GDP growth in Q3 by *use* is presented in Table T2-2. The table shows that investment stood out by the growth rate, of about 17%, which is actually driven by strong construction growth. Although relatively high growth in investment is in principle an economically favorable trend, we nevertheless note that these investments were largely not directed to the production capacities of the economy. Namely, the high growth of investments in Q3 is almost entirely based on the growth of construction (construction accounts for over 40% of total investments in fixed assets in Serbia), that is, the high growth in construction is not even closely accompanied by a similar increase in the economy's investment in production equipment. Excluding investments in construction works, the domestic economy's investments in equipment and other investments grew by about 4% in Q3, and such growth was relatively stable in the first three quarters of 2019. So, although the growth of total investment in the first three quarters (which is over 10%) indicates an investment boom in 2019 and at first glance suggests a strong acceleration of economic activity in the future, it should be taken into account that the private sector actually invests relatively little in new immediate production capacity (machinery, equipment). High construction growth certainly has a positive impact on the supply side of economic activity in the future (construction of infrastructure will help future economic growth, "Turkish Stream" will increase profitability of Srbijagas and increase energy security of the country), not just on the demand side (while works are in progress). However, without a strong increase in the economy's investment in immediate production capacity, i.e. in machinery and equipment, it is difficult to expect a strong and sustainable acceleration of economic growth in the coming years.

Table T2-2. GDP by expenditure method, 2009-2019

	Y-o-y indices										2018				2019			Share 2018
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
											Q1	Q2	Q3	Q4	Q1	Q2	Q3	
GDP	97.3	100.7	102.0	99.3	102.9	98.4	101.8	103.3	102.0	104.4	105.0	105.0	104.2	103.5	102.7	102.9	104.8	100.0
Private consumption	96.7	99.4	101.4	98.3	98.3	99.9	99.7	101.3	101.9	103.1	102.9	103.3	103.1	103.0	103.3	103.3	103.1	69.3
State consumption	98.3	100.0	101.6	100.4	97.9	100.9	96.3	101.2	103.3	103.7	102.3	104.9	104.1	103.2	102.4	102.2	104.6	16.6
Investment	77.5	93.5	104.7	113.9	88.0	96.6	104.9	105.4	107.3	117.8	126.0	120.6	116.7	111.1	107.4	108.8	117.3	20.1
Export	88.5	116.9	105.6	102.9	118.0	104.3	109.4	111.9	108.2	108.3	108.6	106.0	108.7	110.0	109.3	109.4	110.2	50.8
Import	78.1	99.9	107.2	99.4	106.5	105.1	104.0	106.7	111.1	111.6	113.7	109.9	111.8	111.3	109.7	111.0	111.4	59.3

Source: SORS

Real net exports continue to deteriorate

Another trend that continued in Q3, and we have been pointing to for some time now in QM, is the deterioration of net exports, since imports growth was again faster than exports growth (Table T2-2). This trend of deterioration in net exports has been going on for three years now and cannot be explained only by temporary factors (for example bad agricultural seasons) or economically desirable trends (in the case of strong growth in imports of investment equipment and raw materials). The downward trend in net exports is actually longer-lasting, widespread across all product types, and is consistent with the slowdown in industrial production (which produces most of the tradable products) and the deterioration in the price competitiveness of

the domestic economy. The government and the NBS should therefore pay particular attention to this. The government should take into account whether its policies over-stimulate private consumption instead of production and exports, and whether the competitiveness of a part of domestic economy producing exchangeable goods is undermined by a strong increase in the minimum wage and earnings in the public sector (above productivity growth). The NBS, for its part, should implement stronger measures to prevent the dinar from strengthening too much.

The economic growth trend remains around 3.5%, and quarterly results fluctuate around this value under the influence of one-off and cyclical factors

One of the specifics of Serbian economy is that its results are greatly influenced by temporary factors (agricultural seasons, ups and downs in EPS production, and more). For example, GDP growth in 2017 was 2% because a bad agricultural season (drought) temporarily reduced GDP growth rate by about 1 pp, and consequently, GDP growth in the following year, 2018, temporarily accelerated to 4.3% due to the recovery of agriculture from drought. However, when this temporary movement of agriculture is excluded from the results of 2017 and 2018, it turns out that the growth trend of economic activity in both years was almost unchanged, despite the fact that the growth rate in 2018 of 4.4% was more than twice as high than the 2017 one. A similar analysis revealing the real trend of the economy in Q3 2019 without one-off factors (construction of the “Turkish Stream”) is somewhat more complicated, but when implemented it shows that the trend growth of the economy in Q3 was approximately 3.7%, i.e. that economic activity was not nearly as accelerating as the data on the movement of total GDP show (Table T2-3).

Box 1: Calculating the trend growth of GDP

Since this QM release, we have improved the methodology for calculating a trend, carrying, GDP growth (excluding temporary factors). The purpose of calculating trend GDP growth is to reduce temporary fluctuations in GDP growth which obscure trends by eliminating one-off factors, in order to give a more objective picture of deeper and more permanent economic developments. Thanks to this indicator, we can evaluate when a slowdown is temporary and does not require an economic policy response, and when it is needed. Similarly, on the basis of this indicator, we can estimate the sustainability of GDP accelerations that have occasionally occurred in previous years (including Q3 in 2019). Up to now, we have calculated the trend of GDP growth by excluding obvious temporary changes in agricultural production and fluctuations in the production of EPS (coal and electricity production) from GDP results. Since in Q3 the major one-off factor that influenced the temporary acceleration of GDP came from the construction sector, the calculation of trend GDP growth had to be modified.

The problem we encountered in this analysis was that not all the growth / acceleration of construction activity should be excluded from the GDP results, but only that part of it that came about due to temporary and insufficiently reliably measured factors. Therefore, the aim of this correction is to exclude only part of the construction activity that is not sustainable for any reason and maintain the market trend of growth of this activity. One of the major problems in construction statistics (which we have repeatedly written in previous issues of QM) is that official data is systematically biased towards the operations of large and state-owned enterprises that are statistically easier to track, while the activities of small private enterprises and construction in the gray zone mostly remain unregistered. So, it has often happened that the abruptly increased / reduced activity of the state or public companies on the infrastructure construction was registered as an exaggerated change in the growth of construction activity, since a good part of the construction activity that would mitigate these fluctuations is not statistically included. The proof that the preliminary, quarterly, results of construction activity are not reliable is that these data are always most audited when the financial statements of companies are included in the calculation of national accounts, which happens nine to ten months after the end of the calendar year. Because of these systematic problems, we have decided to correct our established methodology for estimating trend GDP growth by recognizing and removing temporary factors from the whole series of quarterly construction activity data in previous years, not just Q3.

The following happened in Q3. The construction of the “Turkish Stream” pipeline temporarily strongly increased the construction activity in the area of construction of “other structures” by over 50%

and the total construction activity by about 35%. While there are more debatable details concerning this assessment (is the project's added value well estimated and is its contribution to the growth of the entire sector perhaps overstated), the essence of our analysis is to evaluate what the real construction growth is without this one-off project, that is, to evaluate the more permanent market trend of this sector's growth in Q3, as well as over a longer period, and then to include only that data in the trend of GDP growth.

Analyses of construction statistics in EU countries conducted by Eurostat¹ show that this sector has a relatively stable and large share of gross wage in GVA of the activity of around 2/3. This indicates to us that the first good indicator describing the market trend of this activity would be the movement of wage mass (employment growth multiplied by real wage growth) of construction workers. This indicator in Serbia is reliably measured in the registered economy (without the gray zone) because the SORS receives data from administrative sources (registered employment - CROCSI and wages - tax returns). In addition, we included a cement production index in the assessment of the market activity of construction in order to include at least part of the gray area movement information in the assessment (cement is used in virtually all construction works, whether registered or not).

The result of this modification of the methodology is shown in Table T2-3 in the row "Serbia - Trend Economic Growth" and it shows that the trend of GDP growth of Serbia without one-off factors during 2019 is very similar to that in 2018 and amounts to about 3.5%, with the usual, smaller, oscillations per quarter. It is also interesting to note that the calculated GDP growth trend from 2016 to 2019 actually indicates a slight and stable acceleration of Serbia's economic activity from 2.9% to 3.5% (before modifying the methodology of calculating the trend GDP economic growth it seemed that economic growth fluctuated in the entire period from 2016 to 2019 in the range of 3-3.5%, with no visible hint of acceleration).

1 Statistics Explained (<http://epp.eurostat.ec.europa.eu/statisticsexplained/>) - 18/10/2016

Table T2-3. Serbia and the CEE countries: GDP growth, 2016-2019

	2016	2017	2018	2018				2019		
				Q1	Q2	Q3	Q4	Q1	Q2	Q3
Serbia	3.3	2.0	4.4	5.0	5.0	4.2	3.5	2.7	2.9	4.8
Serbia – underlying growth ¹⁾	2.9	3.3	3.5	3.5	3.7	3.6	3.4	3.6	3.1	3.7
CEE (weighted average)	3.2	4.8	4.3	4.2	4.4	4.5	4.1	4.3	3.7	3.6
Albania	3.3	3.8	4.1	4.3	4.3	4.7	3.3	2.4	2.3	-
Bosnia and Herzegovina	3.1	3.2	3.6	3.5	3.9	3.1	3.9	2.8	2.6	-
Bulgaria	3.8	3.5	3.1	3.5	3.2	2.7	3.0	4.5	3.8	3.7
Montenegro	2.9	4.7	5.1	4.5	4.9	5.0	4.8	3.0	3.2	-
Czech Republic	2.5	4.4	3.0	3.6	2.7	2.5	3.1	2.8	2.4	3.4
Estonia	2.6	5.7	4.8	4.7	4.5	4.7	5.1	5.0	3.8	4.2
Croatia	3.5	3.1	2.6	2.5	2.9	2.8	2.3	3.9	2.4	2.9
Latvia	1.8	3.8	4.6	3.4	5.2	4.6	5.1	3.0	1.8	2.9
Lithuania	2.6	4.2	3.6	3.6	4.0	3.1	3.9	4.2	3.8	3.7
Hungary	2.2	4.3	5.1	4.7	5.0	5.3	5.3	5.3	4.9	5.0
Macedonia	2.8	0.2	2.7	0.9	3.0	3.0	3.7	4.1	3.1	-
Poland	3.1	4.9	5.1	5.1	5.4	5.8	4.4	4.7	4.1	4.2
Romania	4.8	7.1	4.0	3.6	3.8	4.0	4.2	5.0	4.4	3.0
Slovakia	2.1	3.0	4.0	3.6	4.5	4.6	3.5	3.8	2.2	1.3
Slovenia	3.1	4.8	4.1	4.3	3.7	4.6	3.8	3.3	2.5	2.3

1) One-off factors excluded (droughts, floods, temporary EPS problems, etc.)

Note: Q1 2019 data for three countries are not yet published: Albania, BiH and Montenegro

Source: Eurostat, QM estimate based on SORS data and national bureaus of statistics of BiH and Montenegro

Serbia's GDP growth is structurally lower than in CEE countries

In Table T2-3 we have presented, in addition to data on the overall and trend economic growth of Serbia, the data on GDP growth of other CEE countries and the region. The table shows that for a long time the economic growth of Serbia (without temporary factors) was systematically lower than the average of comparable countries. Nothing dramatically changed in Q3, when Serbia's GDP growth (excluding one-off factors) was only at the level of the CEE average (although by a total GDP growth rate of 4.8%, Serbia was among the leading CEE countries). This means that Serbia undoubtedly has a structural problem of insufficient economic growth. Namely, Serbia is less economically developed than the average of CEE countries, which is why it should systematically have faster economic growth than them, which is not happening. That is why we believe that insufficient economic growth is still probably the biggest economic problem for Serbia. An important additional information given by Table T2-3 is that the slowdown in

economic activity in the CEE has not continued. This is encouraging, given that there has been a fear of a slowdown in GDP in 2019, and perhaps even a recession in some countries. In fact, most CEE countries positively surprised with the rate of economic growth and experienced faster economic growth in Q3 than in Q2.¹

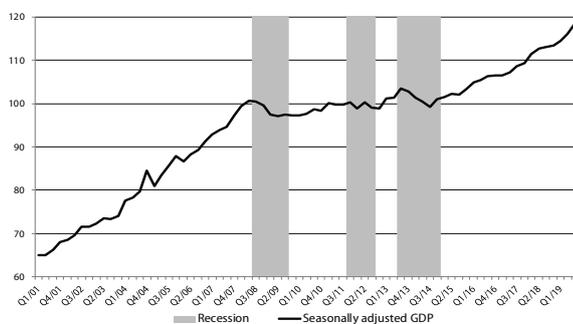
The SORS has revised its GDP data series since 1995

Over the last two years, the SORS has been gradually improving its national accounts statistics and revising old data. In this process last year, the series of GDP data from 2005 to 2017 was revised, and now the remaining data from 1995 to 2005 have been revised as well. New available series include comparable data on nominal, real and seasonally adjusted GDP, calculated by consumption and production, on y-o-y and quarterly basis since 1995. These data will allow much better analysis of long-term trends in economic activity in Serbia and economic policies that have been pursued over certain periods. In Graph T2-4 we show a series of seasonally adjusted GDP index since 2001, which we have made based on new SORS data.

From the beginning of the 2000s, three stages in Serbia's economic growth have been singled out

Graph T2-4 clearly shows three periods in Serbia's economic development since 2001. The first phase began after the democratic changes of October 2000 and saw the liberalization of the economy, privatization and market reforms (in cooperation with international institutions - the IMF, the World Bank, the EBRD), as well as the start of institution-building modeled by the ones in the EU. This phase lasted from 2001 until the outbreak of the global economic crisis at the end of 2008. At this stage, the country had the highest average economic growth of over 6% y-o-y, which was noticeably faster than the economic growth of other CEE countries and the region. The second phase lasted from 2008 until the start of the fiscal consolidation in 2015, and it recorded economic stagnation with an average y-o-y GDP growth of only 0.1%. We could further divide this phase into two subperiods - the first that lasted from mid-2008 to the end of 2010, in which Serbia dealt with the immediate aftermath of the outbreak of the global economic crisis, where our country had even better results than most other CEE countries; and

Graph T2-4. Serbia: Seasonally adjusted GDP growth, 2001-2019 (2008 = 100)



Source: QM estimates based on SORS data

the second from 2011 to the end of 2014, when economic policy makers avoided the implementation of unpopular measures to stabilize public finances and Serbia began to significantly lag behind economic growth of CEE countries. Finally, in the third phase, which began after the implementation of fiscal consolidation and where Serbia currently stands, stable economic growth is restored, but it averages only 3% and is lower than the economic growth of other CEE countries, that is, it is only halfway of the average economic growth achieved from 2001 to 2008.

Although a detailed analysis of economic policies and their results in such separate periods would require much more space, we note that SORS data very clearly deny the increasing public opinion on the disastrous economic policies carried out after the 2000 democratic changes. Certain economic policy mistakes that were taking place at the time were certainly there, and QM has regularly and thoroughly written about them since its first issue in 2005. These mistakes were reflected in the unsustainable growth of the current account deficit, problems in fiscal policy (especially at the end of this period), and, with these errors, there were also negative consequences of transition that could hardly be avoided (loss of large number of jobs in failed companies and social problems of transition losers). However, all things considered, the period 2001 to 2008 cannot be economically assessed as unsuccessful, which is very convincingly documented by the relatively high economic growth rate, which was above the growth of comparable CEE countries during that period.

¹ The exceptions are Slovakia, where there has been a relatively strong decline in industrial production and Romania, in which the slowdown in economic growth is likely due to problems caused by internal economic policies.

So far in 2020, we expect Serbia's economic growth of about 3.5%

The major part of the acceleration of construction activity due to the construction of the Turkish Stream is expected to be exhausted by the end of the year, so economic activity should approximately return to its trend growth of about 3.5% in early 2020. It is likely that in the first half of the year, the growth rate will be slightly higher than 3.5%, as the results of economic activity will be compared to a slightly lower base from 2019, but after that, GDP growth should slow down due to a comparison with a higher base from the second half of 2019. We have slightly increased this forecast of GDP growth of 3.5% in 2020 compared to the previous QM release when we forecasted the economic growth rate for 2020 in the range of 3 to 3.5%. At the time, we were more cautious about economic developments in the CEE countries, and worse economic trends in the region would certainly have a noticeable negative impact on Serbia. Data from Q3, however, suggest that a great slowdown in economic activity in the region is unlikely to occur, so we have slightly increased our forecast for Serbia accordingly. We finally note that this forecast is still preliminary as there are initiated investments that could lead to an increase in production in the next year (e.g. it is possible that production will start in Linglong in Zrenjanin in 2020) as well as announcements of some other large investments that could accelerate economic growth. Thus, it was announced that during 2020, Ziding Bor company could make large investments in new copper mines, which would then have a significant impact on the acceleration of economic activity throughout the country in that year and greater economic growth than we currently expect.

Industrial Production

There was a slight improvement in industrial production in Q3

Industrial production recorded a modest year-on-year growth of 1.6% in Q3 (Table T2-5), which after a year of negative results, this sector of the economy finally moved into a zone of positive y-o-y growth. Despite this improvement, trends in industrial production cannot be assessed favorably, as the industry has been lagging behind other sectors of the economy for a long time, and the results are poor when compared to the growth that the industry experienced from 2015 to 2017. Within industrial production in Q3, mining recorded the largest y-o-y growth of 5%. This mining result is primarily a result of a comparison with the incident decline in coal production in August 2018, which is why coal production achieved an y-o-y growth of 34% in that month. The manufacturing industry recorded a slight y-o-y growth of 1.6% in Q3, and the only industrial production sector that recorded a y-o-y decline in Q3 was electricity production. Continued year-on-year decline in electricity production in Q3 is an unpleasant surprise as production in that quarter was compared to an extremely low base from the same period in 2018 (the sector then had a year-on-year decline of about 7%), so it was expected that in Q3 2019 electricity production will grow solidly. The surprisingly poor performance in electricity production confirms that the problems in the business of the largest company in this field, EPS, are deep and lasting, i.e. not a result of temporary circumstances (floods, cold winters, etc.), which is the most common justification of EPS for fails in the production of this company.

Table T2-5. Serbia: Industrial Production Indices, 2009-2019

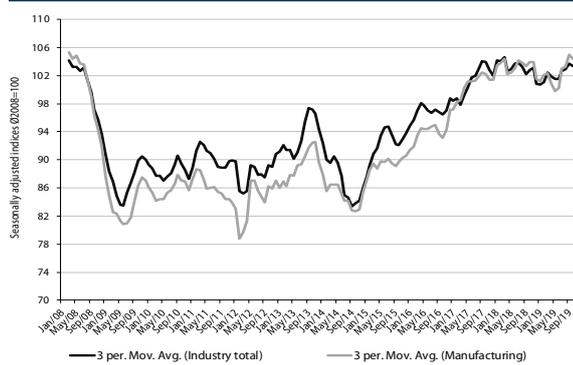
	Y-o-y indices																	Share	
											2018				2019				2018
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
Total	87.4	101.2	102.5	97.4	106.1	92.6	107.3	104.9	104.2	101.4	106.9	101.7	98.6	98.9	97.9	97.7	101.6	100.0	
Mining and quarrying	96.2	103.9	109.8	99.9	105.5	84.1	112.2	103.2	102.2	95.2	103.1	97.8	87.1	94.5	97.0	101.2	105.3	9.6	
Manufacturing	84.1	102.5	99.8	98.7	105.5	95.1	105.7	105.6	106.6	102.0	105.9	101.6	101.0	100.3	97.7	97.0	101.6	75.0	
Electricity, gas, and water supply	101.1	95.6	109.7	92.6	108.4	85.2	112.5	102.3	94.1	101.2	110.9	105.8	93.2	94.7	98.6	99.4	99.0	15.4	

Source: SORS and Eurostat

Seasonally adjusted data confirm a slight recovery in industrial production in Q3

We can also estimate industrial production trends from another angle based on seasonally adjusted indices that we have shown in Graph T2-6. The graph shows the trends of seasonally adjusted manufacturing industry and total industrial production separately. As can be seen in the graph, from the beginning of 2015 until the first half of 2018, industrial production (with usual fluctuations) achieved relatively strong growth. Since 2018, however, there has been a systematic stalemate and stagnation, followed by a decline in overall industrial production (as well as manufacturing).

Graph T2-6. Serbia: Seasonally Adjusted Industrial Production Indices, 2008-2018



Source: SORS

Comparative analysis indicates that in other CEE countries industrial production slowdown continues in Q3

continued to slow down in Q3 - the average year-on-year growth in industrial production in these countries was only 0.5%. This data on the further slowdown in industrial production in CEE countries is particularly interesting when one considers that the overall economic growth in these countries did not have a noticeable slowdown in Q3 compared to Q2. This indicates that relatively domestic demand in these countries has so far been able to offset the fall in industrial output due to a slowdown in exports (most CEE countries have strong exports of industrial products, and a slowdown in industrial production is primarily associated with a decrease in exports demand).

The decline in industrial production was particularly pronounced in the first half of 2019 and was partly due to the overhaul of the plant at NIS. Therefore, the slight recovery that occurred at the beginning of Q3 can be partly attributed to the completion of the overhaul of the facilities in the oil industry, so our best estimate of the trends in industrial production during 2019 made by analyzing seasonally adjusted data is the stagnation.

In Table T2-7, we show the annual growth indices of industrial production in comparable CEE countries. The table shows that industrial production in CEE countries

Table T2-7. Serbia and the CEE countries: the y-o-y growth of industrial production, 2018-2019

	2018				2019		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Serbia	6.9	1.7	-1.4	-1.1	-2.1	-2.3	1.6
CEE (weighted average)	4.9	4.9	4.4	2.9	4.3	2.3	0.5
Bosnia and Herzegovina	5.2	1.5	0.8	-0.4	-5.1	-3.9	-6.0
Bulgaria	1.8	1.4	1.1	0.1	4.0	-0.1	-0.8
Czech Republic	4.2	2.4	3.7	2.0	0.3	1.0	-0.6
Estonia	4.6	3.1	3.8	5.1	4.2	-0.3	-3.9
Croatia	0.5	0.5	-1.5	-3.3	2.7	-0.9	1.2
Latvia	4.4	0.2	2.9	0.9	-0.8	1.4	2.6
Lithuania	7.1	5.2	2.8	5.7	4.7	5.5	4.2
Hungary	4.8	3.0	3.3	4.0	6.6	5.6	6.9
Macedonia	5.2	4.9	5.1	6.4	8.7	1.2	7.1
Poland	5.8	7.1	5.9	4.3	7.0	4.5	2.3
Romania	5.9	5.3	4.6	1.6	1.1	-2.1	-5.1
Slovakia	1.3	5.7	6.1	4.6	6.8	3.0	-2.8
Slovenia	8.8	6.9	3.5	0.8	4.4	3.0	2.3

Source: Eurostat and SORS

Recovery of energy production in Q3

Observed by the purpose of industrial products (Table T2-8), the only major change in Q3 was in energy production, which recorded a year-on-year growth of 2.2% in Q3 after falling over 5% in the first half of the year - while all other purpose groups maintained approximately similar trends from previous quarters. This data confirms the assessment we made based on seasonally adjusted trends that overall industrial production in 2019 is stagnant. Specifically, the decline in energy production in the first half of the year was related to the overhaul of the NIS plant and was therefore temporary. That is why the slightly better results of energy production in Q3 are related to the completion of these overhauls (as well as to a high growth of coal production which was compared with the low base from the previous year). When we cross this data with the trend of seasonally adjusted industrial production (Table T2-6), we get a pretty good explanation of the fall in seasonally adjusted industrial production index in the first half of the year and its regrowth in Q3.

Table T2-8. Serbia: Industrial Production by Purpose, 2009-2019

	Y-o-y indices																
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018				2019		
											Q1	Q2	Q3	Q4	Q1	Q2	Q3
Total	87.4	101.2	102.5	97.4	106.1	92.6	107.3	104.9	104.2	101.4	106.9	101.7	98.6	98.9	97.9	97.7	101.6
Energy	99.0	97.1	105.6	93.3	113.5	86.8	113.1	101.4	98.6	101.1	108.3	103.7	95.5	97.6	95.8	92.6	102.2
Investment goods	78.5	91.6	106.9	105.8	128.2	73.1	107.9	102.3	106.5	102.4	101.3	103.3	104.4	100.6	103.0	102.8	99.4
Intermediate goods	78.5	107.5	103.7	93.9	99.5	98.5	105.3	110.7	110.1	103.6	111.2	100.9	101.5	101.9	98.5	102.5	103.0
Consumer goods	86.7	101.3	95.1	103.4	101.5	98.4	103.2	104.6	102.8	99.5	104.8	100.2	97.3	97.1	97.0	96.3	100.4

Source: SORS

Slight decline in investment goods production

Another important information provided by the analysis of industrial production by purpose is a slight decrease in the production of investment goods by about 0.5%. This decrease was certainly a result of a decrease in motor vehicle production of about 3% as a part of this purpose product group. However, even when excluding motor vehicle production, the industrial production of capital goods has unconvincing results, which is not even close to the high growth of investments in national accounts statistics of over 17%. The data on poor production of investment products confirms our previous assessment that the high growth of investments during 2019, and especially in Q3, is almost exclusively a result of the growth in construction activity (“Turkish Stream”, residential construction), and not the economy’s investment in equipment and machinery.

Economic policies have a negative impact on the growth of industrial production in Serbia

The fact we pointed to in several previous issues of QM is that economic policies that have been implemented in the country for a long time are not simulative for the growth of industrial production. The combination of excessive growth of the minimum wage, which has been increasing significantly faster than the productivity growth of the economy for several years, with a real strengthening of the dinar, results in a strong decrease in the price competitiveness of the domestic economy. Industrial production, which produces by far the largest share of tradable products, is affected the most by these poor economic policies. We believe that this is why the Government and the NBS should acknowledge and take the unfavorable trends in industrial production seriously and consider adjustments to the current populist economic policies - which are politically popular in the short term but hinder the country’s high and sustainable economic growth in the long run. Finally, we point out that the poor performance of industrial production in 2019 was certainly partly influenced by some adverse external factors, such as the introduction of taxes on the export of goods from Central Serbia to Kosovo and Metohija. While it is difficult to assess the undeniable negative impact of such factors on industrial production, available data indicate that they can only be responsible for a small part of the industry slowdown and cannot be an excuse of the Government for poor industrial production results - especially since the relatively strong slowdown in industrial production has begun as early as spring 2018, half a year before the introduction of Kosovo taxes (Table T2-5 and Chart T2-6).

Construction activity

According to the SORS estimate, construction in Q3 recorded a real growth of 35%, primarily due to the construction of the Turkish Stream

Construction activity in Q3 was by far the fastest growing sector of the economy, which according to SORS data achieved GVA growth of as much as 34.7% (Table T2-2). This growth is estimated by the SORS, relying primarily on the Index of Construction Works in the country, which recorded a real y-o-y growth of 39.9% in Q3, an acceleration of over 20 p.p. compared to the previous quarter. The unusually strong acceleration of construction activity in Q3 is primarily due to the construction of the Turkish Stream pipeline. This is confirmed by a detailed data on the value of construction works, since in Q3 the construction of other structures (including gas pipelines) increased by as much as 51.5% compared to the same period last year. On the other hand, the construction of buildings recorded a growth of 18.7%, which was similar to the previous quarters.

An already standard part of QM analysis is to evaluate the reliability of official estimates of movement in construction activity. Namely, due to the specific nature of this sector, estimates of short-term developments in construction are the least reliable in comparison to all other sectors of the economy and most corrected at the time of the release of final annual GDP data (which happens nine to ten months after the end of the calendar year). The real trends in construction are systematically difficult to track in official statistics, since a large number of small private companies are quickly established and shut down in this sector, and much of the activity is carried out in the

Construction has undoubtedly had high growth in Q3, but this growth is likely to be noticeably lower than the SORS estimates

gray zone, also outside the scope of the SORS. In Q3, the usual difficulties of statistical monitoring in this sector were further increased, as the extraordinary growth of construction activity was triggered by a specific activity – the construction of a pipeline. The specificity of this activity is that it should have a significantly lower added value compared to other construction activities, and this is difficult to account for in the short term (without the financial statements of participating companies). Namely, when constructing the pipeline, the materials used are mainly of imported origin (imported pipes, compressors, etc.), and thus the added value of these works is much lower than when constructing other structures (e.g. roads, buildings) where construction materials used are mainly of domestic origin. Therefore, in Q3, there should be a greater difference in the growth of the gross value added of construction sector and derivative value of construction works than that shown by the official SORS data. We used a number of additional indicators that are economically related to construction to estimate the movement of construction activity in Q3, in addition to official data from the construction industry, and they indicate that the growth of this sector was much lower than the official data (35%).

We estimate that construction growth in Q3 was actually slightly below 20%

A good indicator for estimating the movement of construction activity in the formal part of construction is the growth in the wage mass of registered employees (number of employees multiplied by the average salary). This indicator suggests that the value added in the formal part of construction activity increased by over 20% in Q3 compared to the same period last year, as registered employment grew by about 9% and real wages by about 14%. This estimate should now be corrected for movements in the gray area that are not recorded. The first indication that the informal part of construction activity in Q3 experienced significantly lower growth than that in formal economy is given by the Labor Force Survey. This Survey shows that the growth of total construction workers (including both formal and informal employees) was 6%, i.e. significantly lower than the growth of registered employment (9%).

Table T2-9. Serbia: cement production index, 2001–2019

	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	110.1	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	-	-

Source: QM based on SORS data

The high growth in construction will last until the end of the year, and then it will most likely result in a strong slowdown

It is already certain that the extremely high growth in construction, as shown by official statistics in Q3, will continue in Q4. However, after that we expect a relatively strong slowdown since most of the construction works on the Turkish Stream will be completed by the end of the year. Despite the expected slowdown, we expect that construction will have relatively strong growth in 2020 (except that this growth will not be as extreme as in the second half of 2019). Specifically, lending activity of households and economies keeps solid growth, interest rates are still at historically very low levels and will remain so for some time, and the state continues to increase investments in infrastructure (adopted budget does not predict such a strong increase of public investments in infrastructure in 2020 in relation to the execution of 2019, but it should come as no surprise if capital expenditures break through the plan, especially as government officials are announcing the launch of a new national investment program as of 2020).

In addition, another indicator that confirms that construction activity in the informal part of the economy was significantly lower than that in formal economy is the cement production index (Table T2-9). Cement is used in most construction works, both in the formal and informal sectors (but is not generally used in the construction of the pipeline), so cement production gives us additional information on the movement of construction activity without the construction of the Turkish Stream. However, the cement production index rose by only 3.3% in Q3 compared to the same period of the previous year, indicating from another angle that the official estimate of growth in construction activity of about 35% is likely to be overstated. Taking all the additional indicators into account, we conclude that construction in Q3 has undoubtedly had strong growth, but that growth in all likelihood was slightly below 20%, and not about 35% as shown by official statistics.