2. Economic activity

Economic trends in Q1 were not generally favorable. A relatively modest y-o-y GDP growth of 2.5% was recorded, the lowest in Central and Eastern Europe (CEE), and seasonally adjusted growth was only 0.3% compared with the previous quarter (1.2% annually). The reduction in y-o-y growth rate of GDP at the beginning of 2019 was expected because the effect of high growth of agriculture was exhausted, which led to somewhat higher growth rates in 2018 (agriculture in 2018 had a high growth of over 15% because it was compared with the drought from 2017). However, even when we exclude agriculture, GDP growth in Q1 2019 was slower (by about 1 pp) compared with the average of 2018. This additional slowdown in economic activity was primarily a result of domestic weaknesses, and not adverse changes in the international environment. This is confirmed by the fact that other Central and Eastern European (CEE) countries maintained a steady growth in 2018 in Q1, i.e. in Q1 they had a year-on-year GDP growth of 4.3% on average. More specifically, the countries closest to Serbia (for which data are available) in Q1 accelerated rather than slowed down their economic growth - Croatia had a year-on-year GDP growth of 3.9%, Northern Macedonia 4.1% Bulgaria 4.8%, Romania 5% and Hungary 5.3%. The slowdown of economic growth in Serbia (without agriculture) is primarily the result of industrial production movements, which in Q1 had a year-on-year fall of about 1.5%. Several factors lie behind the fall of industrial production : 1) temporary decline in individual activities (overhaul of NIS facilities, unstable production of unreformed EPS), 2) continuation of long-term unfavorable trends in specific areas (e.g. motor vehicle production), and 3) broader trend of slowdown in a large number of activities that could be the result of the fall in price competitiveness of the domestic economy – which can also be seen from another angle in systematic growth of trade deficit. By the end of the year, we expect a gradual acceleration of economic activity because temporary negative factors will cease to exist, but the rate of economic growth in 2019 will most likely amount to about 3%, instead of the previously predicted 3.5%, which will again be among the lowest in the CEE. This indicates that the economic policies in Serbia are unsuccessful in terms of creating conditions for successful business operations and private sector investment and the fast economic growth of the country.

Gross Domestic Product

Year-on-year GDP growth in Q1 fell to 2.5%

After a solid GDP growth of 4.3% in 2018, in the first few months of 2019, there was a significant decline in y-o-y growth rate of Serbian economy. According to recent data from the SORS, the y-o-y growth of GDP in Q1 was only 2.5% and was the lowest in the entire CEE (among the countries for which data are currently available). The reduction of Serbia's GDP y-o-y growth was partially expected and we announced it in the previous QM issues. Namely, the relatively good results of economic activity in 2018 were under significant influence of high, but one-off, growth of agriculture, as it was compared with the dry 2017 and therefore the results were temporary. As the one-off effect of agriculture has been exhausted since the beginning of 2019, it has been expected that economic growth in 2019 would be somewhat lower than in 2018 (about 1 pp). However, the achieved GDP growth in Q1 of 2.5% was, not for 1 pp, but for almost 2 pp. lower than in 2018, suggesting even worse economic performance than expected - i.e. the slowdown in the GDP growth trend.

Table T2-1 shows two indicators that are very important for the assessment of economic trends in Serbia. The first is presented in the second row of the Table (Serbia – Underlying Economic Growth) in which Serbia's GDP growth rate excludes one-off factors (droughts, floods and some other incidental changes in the industry). This line shows us the "underlying" trend of Serbia's economy, which is often blurred by one-off factors. Thus, Table T2-1 clearly shows that in the last three years there have been no major changes in the "underlying" economic growth of Serbia, although realized GDP growth rates have differed significantly. For example, although

GDP growth in 2017 was only 2%, and in 2018 it was twice as high (4.3%), there were no major changes in the trend of economic activity - only in 2017 drought temporarily reduced GDP growth, and in 2018 it temporarily accelerated as a result of the recovery from drought. Another important indicator from Table T2-1 that we use to assess Serbia's economic trend is how different it is from the comparable CEE countries. The table shows that for some time now Serbia's economic growth (excluding one-off factors) has been systematically slower than the average economic growth of comparable countries, and this continued in Q1 2019, with this difference increasing even more.

Table T2-1. Serbia and countries in the CEE region: GDP growth a, 2014-2019

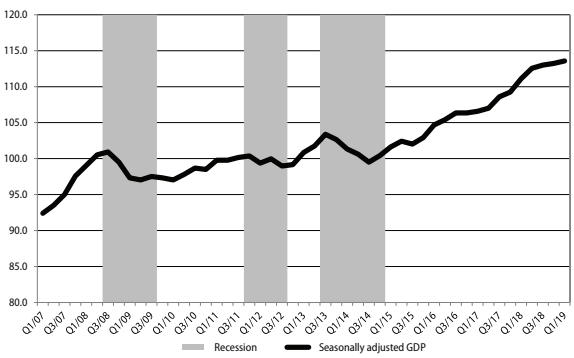
	2016	2017	2018	2018				2019
				Q1	Q2	Q3	Q4	Q1
Serbia	3.3	2.0	4.3	4.9	4.9	4.1	3.4	2.5
Serbia – underlying growth [1)]	2.9	3.3	3.4	3.7	3.8	3.5	2.7	2.8
CEE (weighted average)	3.2	4.7	4.3	4.3	4.3	4.5	4.1	4.3
Albania	3.4	3.9	4.1	4.3	4.2	4.7	3.1	-
Bosnia and Herzegovina	3.1	3.1	3.1	3.2	3.4	2.7	3.0	-
Bulgaria	3.9	3.6	3.1	3.5	3.2	2.7	3.0	4.8
Montenegro	2.9	4.4	4.8	4.5	4.9	5.0	4.8	3.0
Czech Republic	2.6	4.4	3.0	3.5	2.6	2.5	3.0	2.6
Estonia	2.1	4.9	3.9	3.3	3.9	4.0	4.3	4.5
Croatia	3.2	2.8	2.6	2.5	2.9	2.8	2.3	3.9
Latvia	2.2	4.5	4.7	4.0	5.3	4.5	5.1	3.0
Lithuania	2.3	3.8	3.5	3.7	3.8	2.6	3.8	4.0
Hungary	2.2	4.0	4.9	4.6	4.9	5.1	5.1	5.3
Macedonia	2.9	0.0	2.3	0.9	3.0	3.0	3.7	4.1
Poland	3.0	4.6	5.2	5.2	5.4	5.7	4.4	4.7
Romania	4.8	6.9	4.1	4.0	4.1	4.2	4.1	5.0
Slovakia	3.3	3.4	4.1	3.7	4.5	4.6	3.6	3.7
Slovenia	3.1	5.0	4.5	4.8	4.1	5.0	4.1	3.2

Excluded one-off factors (droughts, floods, temporary EPS issues and more)
Note: data for Q1 2019 have not yet been published for three countries: Albania, Bosnia and Herzegovina, and Montenegro
Source: Eurostat *QM* estimates on the basis of SORS data and Statistical Offices for BiH and Montenegro

In CEE countries there was no noticeable economic growth slowdown as in Serbia

Table T2-1 shows that not only is Serbia's economic growth systematically, permanently, lower than in other comparable countries, but also that the short-term trends in Serbia are more unfavorable. The underlying trend of Serbia's economic growth (second row in T2-2) slowed down noticeably in the second half of 2018, and similar developments continued in Q1 2019. Thus, irrespective of the effects of changing agricultural seasons on GDP, Serbia's economic growth was reduced by about 1 pp. compared to the first half of 2018. The Table shows us that similar economic slowdown did not exist in other CEE countries which in the second half of 2018 and the beginning of 2019 maintained virtually unchanged rates of economic growth from the first half of 2018. This clearly indicates that the main reason for the slowdown of economic activity in Serbia is the internal weakness, and not the unfavorable external conditions. Systematic lagging but also short-term unfavorable economic trends in Serbia, when compared to other comparable countries, indicate that the economic policies in Serbia are inadequate in terms of the economic growth.

Graph T2-2. Serbia: Seasonally adjusted GDP growth, 2002-2019 (2008 = 100)



Source: *QM* estimates based on SORS

Seasonally adjusted GDP growth Q1, compared to the previous quarter, was only 0.3%

Graph T2-2 shows the series of seasonally adjusted GDP growth which shows short-term trends in economic activity compared to the year-on-year indices from a different angle and more reliably (the shaded periods represent a recession, according to the Bry-Boschan procedure). Seasonally adjusted GDP growth in Q1, compared with a previous quarter, was 0.3%, which would,

on an annual basis, represent a GDP growth of around only 1.2%. Seasonally adjusted indices confirm previous assessment that a short-term economic slowdown occurred in the second half of 2018, when the slope of the line indicating the growth of seasonally adjusted GDP declined noticeably.[1]

In the achieved growth of GDP in Q1, construction activity and services have the greatest influence, while the industry is in decline

Table T2-3 shows data on the y-o-y GDP growth by activity, i.e. by individual sectors of the economy. The fastest y-o-y growth of 12.3% was recorded by the construction activity. Although Q1 is generally not the most reliable period for estimating the movement in construction activity, as full construction season has not yet started - we believe that the strong growth of this sector of about 10% is sustainable in 2019 and is in line with our expectations. Construction data from Q1 also confirm our assessment from previous QM issues that a strong slowdown in construction activity in the second half of 2018 (Table T2-3) was primarily due to uncertainty in the statistical monitoring of this sector, rather than the actual unfavorable trends. In addition to construction activity, solid growth in Q1 was recorded by all kinds of services, especially Trade, Transport and Tourism, which had a real growth of about 6% over the same period of the previous year. On the other hand, the biggest y-o-y decline in Q1 of about 3% was recorded by agriculture, but this data does not really have any analytical significance because it is not yet known what the agriculture season will be like, and these first estimates of SORS are still preliminary (based on the assumption that in 2019 agricultural production would be average). As far as agriculture is concerned, for the time being it is only certain that it will not continue with its exceptionally high growth from 2018 of over 15%, as the base is now increased. Industrial production had essentially the worst trend of all analyzed sectors, and in Q1 was in third consecutive quarter with a year-on-year decline. Although the industry accounts for less than 25% of Serbia's GVA, this sector produces the largest share of traded products, and this structure of GDP growth by activity - a relatively high growth in services with a fall in industrial production - indicates that GDP growth is currently not in balance and is primarily based on domestic demand.

Table T2-3. Serbia: Gross Domestic Product by Activity, 2008- 2019[1]

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	Share 2017
Total	97.3	100.7	102.0	99.3	102.9	98.4	101.8	103.3	102.0	104.3	104.9	104.9	104.1	103.4	102.5	100.0
Taxes minus subsidies	94.7	99.6	101.8	99.0	98.7	100.2	99.1	101.0	101.7	103.5	103.4	103.7	103.5	103.4	103.3	15.1
Value Added at basic prices	97.8	101.0	102.1	99.4	103.7	98.1	102.3	103.8	102.1	104.5	105.2	105.1	104.3	103.4	102.3	84.9
Non agricultural Value Added	97.5	101.1	102.2	100.8	102.5	97.8	102.3	103.4	103.3	103.6	104.7	104.4	103.1	102.4	102.7	92.8[2]
Agriculture	100.8	99.6	100.9	83.0	121.0	102.0	102.0	108.3	88.8	115.6	112.6	115.9	117.2	115.6	96.9	7.2[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	98.4	23.6[2]
Construction	87.2	92.6	114.8	101.2	82.5	101.4	116.8	107.9	105.7	112.7	126.7	120.4	109.9	102.7	112.3	4.7[2]
Trade, transport and tourism	99.8	102.5	98.2	98.4	99.3	98.9	103.0	104.6	105.5	106.0	105.4	105.8	106.2	106.5	105.8	18.4[2]
Informations and communications	106.5	102.9	108.2	113.7	104.3	102.8	102.6	103.7	103.8	105.0	104.4	105.3	105.1	105.1	104.9	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	101.8	100.2	102.6	100.4	104.0	103.4	3.6[2]
Other	101.6	101.1	101.0	100.5	102.8	100.5	98.9	101.6	102.2	102.7	102.0	103.0	102.8	102.9	102.3	33.3[2]

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

Q1 net exports continues to deteriorates

The structure of the achieved GDP growth by expenditure is shown in Table T2-4. The table shows that investments had a relatively high growth of around 8% in Q1, which is similar to the average growth of investments in 2018 and is in line with high growth in construction activity. Unlike investments, net exports continued to deteriorate in 2018 as growth in imports was faster than export growth (Table T2-4). These trends of deterioration of net exports have lasted for more than two years and cannot be explained only by the poor agricultural season in 2017 or the purchase of investment equipment - which would be temporary (agriculture) or economically desirable (in the case of a strong growth in investment equipment imports). These trends of net exports decrease are more permanent, widespread in all types of products, and are consistent with the deterioration of industrial production (which produces the dominant part of tradable products). The Government and the NBS should therefore pay special attention to them. The

1 As one of the reasons for a slowdown in Serbia's economic growth the introduction of a 100% tax on exports of goods to KiM was often mentioned in public. Taxes certainly had a certain negative impact on economic activity, but it could not be so big and it was not the decisive reason for the slowdown in economic activity, which is implicitly shown in Graph T2-2. Namely, the Graph shows that the slowdown in the Serbian economy started well before the introduction of the mentioned tax, but also that the seasonally adjusted GDP growth index for the last three quarters was low but very stable - the effect of tax introduction would reflect on seasonally adjusted indices as a one-time deterioration and not as a permanent trend change.

government should take into account whether its policies encourage spending too much instead of production and exports, and the NBS should consider whether the current dinar exchange rate is more incentive to imports or exports, i.e. whether more robust measures are needed to prevent excessive strengthening of the dinar.

Table T2-4. GDP by expenditure method, 2009-2019

	Y-o-y indices															
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018				2019	Share
											Q1	Q2	Q3	Q4	Q1	2017
GDP	97.3	100.7	102.0	99.3	102.9	98.4	101.8	103.3	102.0	104.3	104.9	104.9	104.1	103.4	102.5	100.0
Private consumption	96.7	99.4	101.4	98.3	98.3	99.9	99.7	101.3	101.9	103.3	103.1	103.4	103.3	103.2	103.2	70.8
State consumption	98.3	100.0	101.6	100.4	97.9	100.9	96.3	101.2	103.3	103.6	102.1	104.8	104.0	103.3	102.5	16.2
Investment	77.5	93.5	104.7	113.9	88.0	96.6	104.9	105.4	107.3	109.2	116.3	111.6	108.3	103.2	108.4	17.7
Export	88.5	116.9	105.6	102.9	118.0	104.3	109.4	111.9	108.2	108.9	109.2	106.6	109.3	110.6	109.3	50.5
Import	78.1	99.9	107.2	99.4	106.5	105.1	104.0	106.7	111.1	111.1	113.2	109.4	111.4	110.9	109.4	57.1

Source: SORS

Private consumption in Q1 has a faster growth than production

The real growth of the largest expenditure component of GDP, private consumption, was slower than GDP growth virtually from the outbreak of the crisis in the second half of 2009 to 2018. This was one of the main reasons for the systematic reduction in inflation and current account deficit compared to the pre-crisis levels. Since 2018, however, this trend has been reversed. Private consumption growth throughout 2018 was roughly equal to the trend growth of GDP (excluding one-off factors - Table T2-1), and at the beginning of 2019 private consumption growth began to be higher than GDP growth. We believe this is not a favorable economic trend. The Serbian economy still has a pronounced structural imbalance resulting from considerably higher consumption than production (a current account deficit) and a high share of private consumption in GDP (private consumption accounts for about 70% of GDP in Serbia, while the average share of this component of GDP in other CEE countries is below 60%). For Serbia, therefore, it would be optimal that in a longer period of time private consumption grows at least one percentage point slower than the long-term GDP growth - which did not happen in 2018 and early 2019.

GDP growth in 2019 probably about 3%

When analyzing more closely what lies behind the slowdown in economic growth that started in the second half of 2018 (Graph T2-2), we see that, in addition to more permanent trends, there are some temporary factors that will be exhausted in the coming quarters. For example, NIS had large plant overhauls in Q1, leading to a drop in oil derivatives production by as much as 90% in March (and 60% in April). Also, somewhat better results in electricity production in March and April and a relatively favorable hydrological situation point to future EPS production growth (which is declining from the second half of 2018). Due to all this, we expect that in the second half of the year there will be a certain acceleration of economic activity compared to Q1, but it is likely that GDP growth in 2019 will still be around 3% instead of the previously projected 3.5%. The important fact to point out, however, is that the data for Q1 indicate that the average economic growth of CEE countries in 2019 will be over 4%, as in the previous two years, and that Serbia's lagging behind in economic growth will be deeper - even if Serbia achieves the projected GDP growth rate of 3.5%.

Industrial production

Industrial trends in 2019 are unfavorable

Industrial production in Q1 recorded a year-on-year fall of 1.9% (Table T2-5). All three sectors of industrial production declined in relation to the same period of the previous year. Mining by 3.1%, manufacturing industry by 1.9%, and electricity production by 1.4%. When we compare Q1 results with previous quarters, Q3 and Q4 2018, we see that the y-o-y decline in mining and electricity production is decreasing, and is deepening in the manufacturing industry (Table T2-5). Movements in mining and electricity production are a direct consequence of problems in EPS operations[2]. The latest results of these industrial production sectors are somewhat more favorable, suggesting that EPS has managed to stabilize its production and announce that these

2 The movement of mining is influenced by EPS through the area of "Coal exploitation" where this company is the dominant producer. We have written about EPS issues in more detail in previous issues of QM.

sectors may move into a positive growth zone in the second half of the year, compared to a low base from 2018. Unlike these two sectors, the manufacturing industry is far more heterogeneous and its bad results better reflect market trends in industrial production.

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

	Y-o-y indices															Share
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018				2019	2017
											Q1	Q2	Q3	Q4	Q1	
Total	87.4	101.2	102.5	97.7	105.6	92.6	107.3	105.2	103.9	101.3	106.1	102.1	98.5	99.1	98.1	100.0
Mining and quarrying	96.2	103.9	109.8	100.0	105.3	84.2	112.2	103.2	102.2	95.2	103.1	98.0	87.1	94.5	96.9	9.4
Manufacturing	83.9	102.7	99.8	99.1	104.7	95.3	105.7	106.0	106.3	102.0	105.0	101.9	101.0	100.5	98.1	72.7
Electricity, gas, and water supply	100.8	95.7	109.7	92.8	108.2	85.1	112.5	102.7	93.9	101.1	111.3	105.9	93.2	94.8	98.6	18.0

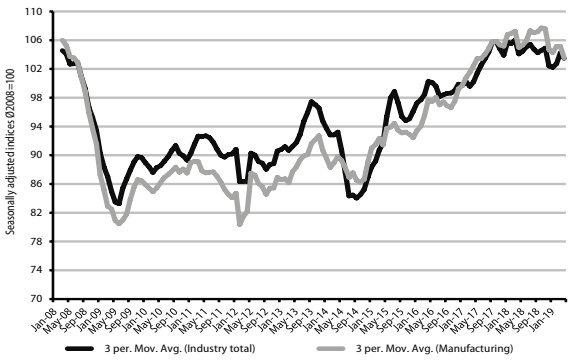
Source: SORS

Unfavorable movements can not be explained only by temporary factors

In fact, the main question we put into the analysis of industrial production in Q1 is whether the unfavorable trends are the consequence of temporary circumstances and therefore short-lived or part of widespread and, consequently, more prolonged and dangerous deterioration? The answer to this question is that there are short-term and permanent negative factors, but the permanent factors are, by all means, more dominant. Namely, it is indisputable that the bad results of industrial production in Q1 were considerably caused by one-off factors (overhauls in NIS and the consequent huge fall in oil derivatives production, and EPS problems), but they did not have a crucial impact on the bad results. Even without the fall in mentioned areas, the industrial production growth, i.e. processing industry growth, would be barely positive. An additional indication that poor industrial output is structural rather than temporary in nature is the medium-term trend[3] in the manufacturing industry over the last few years (Table T2-5). Between 2015 and 2017, the manufacturing industry had a relatively high and stable growth of about 6%, and then the year-on-year growth began to slow down throughout quarters in 2018, which was finally completed in Q1 2019 when it entered a negative y-o-y growth zone. Such stable deterioration of results for more than a year additionally confirms that individual negative factors didn' play a decisive role in the deterioration of total industrial production, but that it is a more widespread trend.

Seasonally adjusted industrial production data confirm broader trends of the slowdown in economic activity

Graph T2-6. Serbia: Seasonally Adjusted Industrial Production Indices, 2008-2019



Source: SORS

We can also make an estimate of industrial production trends from another angle, based on the seasonally adjusted indices we have shown in Graph T2-6. The graph shows the seasonally adjusted trend of manufacturing industry and the total industrial production. As can be seen from the Graph, from the beginning of 2015 until the first half of 2018, industrial production (with normal oscillations) was in a relatively strong rise. However, since the first half of 2018, there has been a systematic halt and stagnation, if not the fall of industrial production.

Comparative analysis shows that a similar slowdown in industrial production did not occur in other CEE countries

Table T2-7 shows the year-on-year indices of industrial production growth in comparable CEE countries. The table shows that the substantial deterioration of the trend is in principle specific to Serbia[4], while other CEE countries in Q1 continued with relatively normal, solid growth rates of industrial production. All this points to the fact that the decline in industrial production, as well as the slowdown of total GDP in Serbia, is a consequence of internal factors, and that the Government and NBS need to take these indicators into consideration and consider possible corrections of current economic policies.

3 As we have already mentioned, the manufacturing industry is more reliable for assessing trends in the industry, since the total industrial output was under the relatively strong influence of fluctuations in EPS production.

4 Only Bosnia and Herzegovina had a strong deterioration of the industrial production trend that was even more pronounced than in Serbia

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
Serbia	6.1	2.0	-1.5	-0.9	-1.9
CEE (weighted average)	5.0	4.9	4.4	3.0	4.3
Bosnia and Herzegovina	5.3	1.6	0.7	-0.5	-5.1
Bulgaria	1.8	1.4	1.1	0.0	4.1
Czech Republic	4.3	2.5	3.9	2.3	0.3
Estonia	4.7	3.1	3.8	5.2	3.5
Croatia	0.6	0.5	-1.6	-3.3	2.8
Latvia	4.7	0.2	3.0	0.9	-0.9
Lithuania	7.1	5.2	2.9	5.7	4.5
Hungary	4.8	3.3	3.6	4.3	6.3
Macedonia	5.4	4.9	5.0	6.4	8.9
Poland	5.9	7.1	5.9	4.3	6.9
Romania	5.9	5.4	4.6	1.6	1.1
Slovakia	1.3	5.7	5.9	4.5	6.7
Slovenia	8.9	6.9	3.8	0.7	4.4

Source: Eurostat and SORS

Increase in production of investment goods is positive

Observed by purpose of industrial products (Table T2-8), there was a divergence in the trends of industrial production of individual groups in Q1. One of the few positive trends in industrial production is a solid growth of investment products, which in Q1 amounted to about 5%. This result is particularly significant considering that this product category also includes the production of motor vehicles which in Q1 fell by 13% due to reduced demand for the model produced by FAS. All other special purpose product groups had a y-o-y drop, ranging from 4.6% (in energy production) to 1.3% (in the production of intermediate products).

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
Total	87.4	101.2	102.5	97.7	105.6	92.6	107.3	105.2	103.9	101.3	106.1	102.1	98.5	99.1	98.1
Energy	98.8	97.7	106.2	93.6	113.2	82.6	116.9	101.9	98.3	101.2	108.4	103.9	95.6	97.6	95.4
Investment goods	79.3	93.6	103.2	103.8	127.6	95.9	103.0	101.6	107.1	102.0	98.0	104.4	104.1	101.6	104.9
Intermediate goods	78.4	109.2	102.2	91.2	99.0	96.8	105.3	109.5	109.7	103.5	111.3	101.4	101.6	102.2	98.7
Consumer goods	86.8	102.1	95.4	103.2	100.7	100.7	104.0	105.6	102.5	99.5	103.8	100.7	97.3	97.2	97.3

Source: SORS

By the end of the year we expect a slight recovery of industrial production

As we have already pointed out, the poor output of industrial production in Q1 was affected by temporary factors, such as the overhaul of NIS production facilities, EPS manufacturing problems, etc. In the coming quarters, therefore, we expect a certain recovery of industrial production and a move to a mild positive growth zone. This recovery will likely be sufficient for industrial production to avoid the decline on annual level (in the first four months of 2019 the decline in industrial production was 1.5% compared to the same period last year). In any case we can now conclude with certainty that since the middle of 2018 there have been structural changes and that, unlike the period 2015-2017, industrial production no longer triggers GDP growth, but rather follows it.

Construction

Construction activity in Q1 grew by more than 10%

According to the SORS estimates, construction activity in Q1 recorded a strong real y-o-y growth of 12.3% (Table T2-2). SORS estimates this growth relying primarily on the Index of the value of construction works in the country, which in real terms recorded a real y-o-y growth of 13.6% in Q1. The analyzes that we regularly implement in the QM indicate, however, that the SORS estimates of the movements in the construction activity are systematically more unreliable than for other sectors of the economy. The problem with monitoring this sector of economy is that a large number of small private companies that are quickly established and closed, operate within it, which official statistics monitors with difficulty, and a good part of

the activity is carried out in the gray zone, out of sight of the SORS. Therefore, along with the official data from the construction statistics, we always monitor a series of additional indicators through which, indirectly and not completely precisely, but with relative reliability, we follow the basic trends in this sector of the economy. For example, in the course of 2018, these additional indicators pointed to a much different (and more probable) movement of construction activity than that of official statistics.[5] In Q1, however, all additional indicators were consistent with the official estimates of the SORS. Therefore, we conclude that construction activity in Q1 indeed had a high, two-digit y-o-y growth of between 10% and 15%.

Additional indicators that we used for a more reliable assessment of trends in construction activity are the movement of employees and salaries of employees in construction activity and cement production. As for the trends in the labor market - the number of registered employees, as well as the number of employees in the construction industry, including the informal sector (measured by the Labor Force Survey), shows a y-o-y growth of around 10% in Q1, while real gross wage growth in construction was 4.5%. Thus, the movement in the mass of wages within construction activity is indisputably consistent with the high y-o-y growth of construction activity of over 10%.

Table T2-8. Serbia: Cement Production, 2001-2019

	Y-o-y indices														
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018				2019
											Q1	Q2	Q3	Q4	Q1
Total	87.4	101.2	102.5	97.7	105.6	92.6	107.3	105.2	103.9	101.3	106.1	102.1	98.5	99.1	98.1
Energy	98.8	97.7	106.2	93.6	113.2	82.6	116.9	101.9	98.3	101.2	108.4	103.9	95.6	97.6	95.4
Investment goods	79.3	93.6	103.2	103.8	127.6	95.9	103.0	101.6	107.1	102.0	98.0	104.4	104.1	101.6	104.9
Intermediate goods	78.4	109.2	102.2	91.2	99.0	96.8	105.3	109.5	109.7	103.5	111.3	101.4	101.6	102.2	98.7
Consumer goods	86.8	102.1	95.4	103.2	100.7	100.7	104.0	105.6	102.5	99.5	103.8	100.7	97.3	97.2	97.3

Source: *QM* based on SORS data

Cement production recorded a year-on-year increase of 12.2%

As the most reliable additional indicator describing the movement of construction activity, we single out the cement production. Namely, cement is used in virtually all types of construction works, its production can be followed relatively easy and reliably (only few cement production companies), and cement consumption is approximately equal to its production, as long-distance transport by land is not economically justified, i.e. foreign trade of this product is relatively small. Cement production in Q1 recorded a year-on-year increase of 12.2% (Table T2-9).

In 2019 we expect growth of construction activity of around 10%

Table T2-9. Serbia: Cement Production, 2001-2018

	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	-	-	-	-

Source: *QM* based on SORS data

Construction activity in Q1 is not representative for the assessment of annual trends of this sector of the economy, because it is under the great influence of meteorological conditions and the construction season is not in full swing. For example, a slightly warmer winter, with more working days, is sufficient, for y-o-y indices to show high growth, which can easily prove unsustainable in the coming quarters. The QM analysis, however, shows that this was not the case in Q1 2019 and that the high growth in construction activity will likely be extended by the end of the year. Namely, the winter of 2019 was not significantly different from the previous year, and there are economic arguments supporting the assessment that the growth of construction activity throughout 2019 will be high - the credit activity of the population and the economy has a solid growth, interest rates are still historically very low and the state continues to increase investment in the infrastructure.

5 For more details, see *QM*55 or some of the *QM* issues from 2018.