2. Economic Activity

The growth of the Serbian economy in 2017 was rather modest. The achieved GDP growth of 1.9% was the lowest in the entire Central and Eastern Europe (CEE), excluding Macedonia which had a political crisis. The structure of Serbia's GDP growth in 2017 was also not good enough. Two main levers that should be generators of Serbia's economic growth in the medium term - investments and net exports - were not convincing. Investments had a solid growth of 6%, but for a more significant increase of their share in the GDP and the acceleration of economic activity their y-o-y growth should be around 10%. Net exports, due to the faster growth of imports from exports, had a negative impact on GDP growth instead of supporting it. In 2018 we expect somewhat better results of economic activity than in 2017. Namely, we enter 2018 with the year-on-year GDP growth from the last quarter of 2017 of 2.5%, the highest in the previous year, and the first data for January 2018 are also favorable. In addition, in 2018 recovery of agriculture after drought should be expected and the usual level of electricity production after a deep decline in the first half of 2017 should be reestablished. These one-off factors, along with the existing trends, should lead to the GDP growth of at least 4% in 2018, which would be Serbia's highest economic growth since the outbreak of the crisis in the second half of 2008. However, it should not be forgotten that a 4% increase, if achieved in 2018, would not yet be fully sustainable (as it rests partly on a one-off recovery of agriculture), and in relation to other comparable countries it would not be impressive - as the CEE countries in 2017 achieved an average growth of 4.5%. Therefore, the Government should support economic growth through structural public-sector reforms and reforms of public enterprises that fell short during the implement of the fiscal consolidation, increase efficiency in public investments and improve the economic environment (the rule of law, reduction of corruption, increase the efficiency of public administration, etc.). For the necessary acceleration of economic growth, it is very important that the NBS more decisively halts the excessive strengthening of the dinar, which negatively affects the international price competitiveness of the economy, thus affecting further deterioration of net exports.

Gross Domestic Product

In 2017 a low GDP growth of 1.9% was achieved

Economic growth rate in 2017 was a modest 1.9%, which is in line with the forecasts we made in the previous issues of QM. The achieved GDP growth in 2017 is lower by almost one percentage point from the GDP growth in 2016 and is practically the lowest in the whole Central and Eastern Europe (lower growth in 2017 was recorded only by Macedonia, which in the first half of the year had a political crisis). The negative results of economic activity in Serbia in 2017 were affected by temporary and permanent factors. The temporary factors are the reduction of agricultural production due to drought and the problems in the operation of EPS in the first half of 2017. Drought and the problems caused by poor EPS management combined lowered economic growth by about one percentage point. However, even without such temporary factors, Serbia's GDP growth would be slightly below 3% and would again be the lowest in the CEE (except for Macedonia). This indicates that the temporary circumstances from 2017 were not the only reason behind Serbia's low economic growth, but that there are other, more permanent problems behind it.

Table T2-1 shows the growth of the GDP of Serbia and other countries in the region since 2014. In addition to the GDP growth of Serbia the Table shows its underlying economic growth - from which we excluded temporary factors that affect the growth of GDP (agricultural seasons, changes in electricity production and coal mining that were under the significant influence of floods from 2014, and problems in EPS's operations in the first half of 2017). The data from the Table clearly show that Serbia systematically significantly lags behind the growth rates of comparable countries, because in the past four years it almost always had the lowest economic growth in the entire CEE. Therefore, the cumulative economic growth of Serbia from 2013 to 2017 was around 5%, while the cumulative growth of comparable countries in the region and the CEE countries was in average over 15% in the same period. These data confirm that there are systematic, structural, problems influencing Serbia's economic growth to be low and to lag behind comparable countries in the long run[1].

Table T2-1. Serbia and Countries in the Region: GDP Growth, 2014-2017

	2014	2015	2016	2017[1)]
Serbia	-1.8	0.8	2.8	1.9
Serbia – underlying growth [2)]	-0.8	1.2	2.3	2.9
Neighbouring countries (weighted average)	2.9	3.8	3.2	4.5
Albania	2.7	3.5	3.7	4.8
Bosnia and Herzegovina	1.8	2.2	3.4	3.9
Bulgaria	1.3	3.1	3.3	3.0
Croatia	1.3	3.6	3.9	3.8
Hungary	-0.1	2.3	3.2	3.0
Macedonia	4.2	3.4	2.2	3.8
Montenegro	3.6	3.9	2.9	-0.4
Romania	1.8	3.4	2.9	4.0
CEE (weighted average)	3.1	4.0	4.8	6.9

1) For countries for which GDP growth in Q4 has not yet been published, growth in 2017 is estimated on the basis of y-o-y growth in the first three quarters
2) Excessive effect of drought, floods and poor EPS control
Source: Eurostat, statistical offices of individual countries and the EU Commission

The direct causes of the low growth of Serbian economy are small investments and relatively low exports

A long period of time ago we have recognized a much worse structure of GDP use in Serbia than in other countries as the direct reason for systematically considerably lower Serbian economic growth in relation to comparable countries. Namely, Serbia in relation to comparable countries stands out with a low share of investments in the GDP and a low exports share, while on the other hand the share of private consumption in the GDP is extremely high, even 15pp. above the CEE average. Table T2-2 comparatively shows the structure of GDP in Serbia in relation to the (weighted) average of the CEE and the countries in the region in the period 2014-2017.

Table T2-2. Serbia and the CEE Countries: Structure of GDP by Consumption, Average 2014-2017.

	Private consumption (C)	Public Consumption (G)	Investment (I)	Exports (X)	Imports (M)
			Share in GDP		
Serbia	73.7	16.5	17.7	48.1	57.4
Central and Eastern Europe (weighted average)	57.8	17.7	21.2	60.9	58.6
Neighbouring countries (weighted average)	60.7	16.7	22.0	56.1	56.5

Source: Eurostat

Table 2-2 clearly shows that Serbia cannot support the acceleration of economic growth with further increase in private consumption. which is already too high in relation to the production. Instead, the main drivers of Serbia's economic growth in the medium term should be investments and (net) exports, and consumption should grow somewhat slower than the GDP. For this reason, both the Government and the NBS, in order to accelerate economic growth, have to lead policies that would stimulate investments and net exports rather than consumption. In terms of investments, the Government should: 1) increase public investments, 2) reform public enterprises so they can invest more, 3) privatize remaining state-owned enterprises such as RTB Bor and Petrohemia, and 4) improve the business environment above all in the areas of the rule of law and reduction of corruption and increase the efficiency of the state administration. In addition, it is very important that the NBS prevents the excessive dinar strengthening which negatively affects net exports, while excessive cheap imports stifle domestic production.

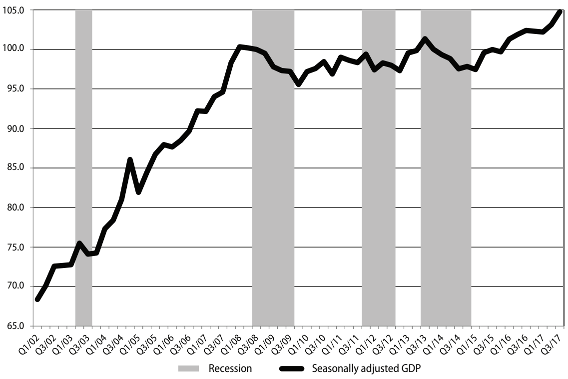
1 The lagging of Serbia's economy behind the countries of Central and Eastern Europe begun in 2010. See Arsić et al., "Quality of Institutions as a barrier to the long-term growth of Serbia's economy", Proceedings of Economic Policy in 2018, Faculty of Economics and NDES.

GDP growth in Q4 was 2.5%

Short-term indicators of economic activity improved slightly at the end of 2017. In the last quarter of 2017, the y-o-y GDP growth of 2.5% was achieved, with Q4 being the quarter with the highest y-o-y growth in the whole 2017. The structure of the achieved economic growth is also somewhat more favorable compared to the previous quarters. The biggest contribution to GDP growth, on the spending side, came from investments, and from the production side – from the construction activity. The only important component of GDP which deteriorated in Q4 compared to the previous quarters was net exports. In principle, somewhat more favorable economic trends in Q4 came too late to change the bad impression on GDP growth in 2017, but are important for the coming year as with these trends we enter 2018.

Seasonally adjusted GDP growth in Q4 compared to the previous quarter was 0.6%

Graph T2-3. Serbia: Seasonally Adjusted GDP Growth, 2002-2017 (2008 = 100)



Source: *QM* estimates based on SORS

Graph T2-3 shows a series of seasonally adjusted GDP growth which somewhat more reliably indicates short-term economic activity trends from the y-o-y indices (the shaded periods represent a recession according to the Bry-Boschan procedure). Seasonally adjusted GDP growth in Q4 was 0.6%. Although this result at first glance indicates a certain slowdown of GDP growth compared to Q3 (Graph T2-3), it should be noted that in Q3 seasonally adjusted GDP growth was one-off slightly higher due to the recovery of electricity production, which was exhausted by Q4. Taking this into account, as well as the usual oscillations of seasonally adjusted indicators at quarterly level, the seasonally adjusted data on GDP in the second half of 2017 confirm that in 2018 we enter with a growth trend of economic activity of approximately 3%.

Strong growth of investment in Q4 of over 12%

The structure of the achieved GDP growth in Q4 observed by use is presented in Table T2-4. The table shows that in Q4 there was significant acceleration of the year-on-year growth of investments, which amounted to 12.4% in Q4. After slow growth of only 2.5% in the first half of the year, investments accelerated sharply in the second half of the year. Thanks to this change, total growth in investments in 2017 was somewhat over 6%. As for the high and sustainable growth rates of the Serbian economy the share of investments in GDP has to be between 23% and 25%, the y-o-y growth of 6% is still not sufficient for Serbia. Namely, with this growth rate of investments, their share of 23% of GDP could be reached in eight years. That is why it is very important that the two-digit trend of investments growth from Q4 continues in the coming years.

Unlike investments which had positive trends at the end of 2017, net exports in Q4 declined. Exports significantly slowed down its growth, while imports accelerated (Table T2-4). Such trends in net exports from 2017 are very unfavorable, and the Government and the NBS will have to pay special attention to them. We particularly emphasize that the last strengthening of the dinar is dangerous as it negatively affects the movement of net exports. This channel could undermine Serbia's economic growth, i.e. it could lead to re-expansion of the economic imbalance which, from the outbreak of the crisis in 2008 and until 2017, has been strongly reduced. Therefore, in the forthcoming period NBS would have to take stronger measures to prevent the strengthening of the dinar.

Table T2-4. Serbia: GDP by Expenditure Method, 2009-2017

	Y-o-y indices																	
										2016				2017				Share
	2009	2010	2011	2012	2013	2014	2015	2016	2017	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016
GDP	96.9	100.6	101.4	99.0	102.6	98.2	100.8	102.8	101.9	104.0	102.0	102.8	102.5	101.2	101.5	102.2	102.5	100.0
Private consumption	99.4	99.4	100.9	98.2	99.4	98.7	100.5	101.0	101.8	101.0	101.2	100.7	101.1	102.0	101.6	101.8	101.9	72.4
State consumption	100.6	100.8	101.1	102.4	98.9	99.4	98.5	102.2	101.0	102.3	103.7	100.9	102.3	100.4	101.5	101.0	101.1	16.0
Investment	77.5	93.5	104.6	113.2	88.0	96.4	105.6	105.1	106.2	106.9	104.6	106.5	102.7	102.4	102.6	106.2	112.4	17.7
Export	93.1	115.0	105.0	100.8	121.3	105.7	110.2	112.0	109.8	112.5	110.8	110.9	114.0	109.0	111.2	111.6	107.5	50.0
Import	80.4	104.4	107.9	101.4	105.0	105.6	109.3	109.0	110.7	106.5	113.4	108.0	108.1	111.2	108.9	110.8	112.0	57.5

Source: SORS

Along with the large decline in agriculture, which marked the whole 2017, Q4 records a high growth in construction activity

Table T2-5 shows GDP growth by activity. In Q4, a sharp decline in agriculture of about 10% continues as a result of the impact of drought on farming. On the other hand, construction activity strongly accelerated in Q4 achieving a year-on-year growth of almost 18%. Such high growth in construction activity represents a strong turnaround compared to the trend from the first half of the year, when according to the SORS data construction activity recorded a y-o-y decline. Other production sectors in Q4 generally had similar growth rates as in previous quarters. Only the industry somewhat slowed down its growth compared to Q3 (in Q4 a 3.7% y-o-y growth was achieved and in Q3 it was around 6%), which we still do not consider as worrying trend but as temporarily oscillations (Table T2-5).

Table T2-5. Serbia: Gross Domestic Product by Activity, 2008-2017

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2016				2017				Share
										Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2016
Total	96.9	100.6	101.4	99.0	102.6	98.2	100.8	102.8	101.9	104.0	102.0	102.8	102.5	101.2	101.5	102.2	102.5	100.0
Taxes minus subsidies	98.6	99.5	101.1	97.8	98.9	99.2	100.9	101.0	102.1	101.0	101.7	100.2	101.2	102.2	101.8	102.3	102.1	15.7
Value Added at basic prices	96.6	100.8	101.5	99.2	103.3	98.0	100.7	103.2	101.8	104.6	102.1	103.3	102.8	100.9	101.4	102.2	102.6	84.3
Non agricultural Value Added	96.7	100.2	101.5	101.1	101.6	97.5	101.7	102.7	103.1	104.1	102.0	102.3	102.1	101.5	102.4	104.1	104.0	90.1 2)
Agriculture	95.2	106.4	100.9	82.7	120.9	102.0	92.3	108.1	90.5	107.5	104.4	111.6	107.8	93.7	90.9	88.1	90.5	9.9 2)
Industry	96.8	100.8	103.2	105.6	106.0	92.4	103.2	102.6	103.5	106.6	99.2	102.0	102.9	101.2	103.0	106.1	103.7	24.3 2)
Construction	87.1	97.6	105.9	90.2	96.1	98.5	102.7	103.2	105.5	109.5	104.6	105.4	96.5	96.3	98.0	106.1	117.8	5.2 2)
Trade, transport and tourism	92.9	100.0	99.5	99.3	102.3	101.1	102.2	103.7	104.6	105.0	103.0	103.2	103.8	103.0	104.1	105.9	104.9	18.5 2)
Informations and communications	97.0	103.2	102.6	102.8	99.9	96.1	101.7	105.8	101.2	106.6	106.7	105.5	104.2	99.9	101.4	101.0	102.7	5.2 2)
Financial sector and insurance	102.6	101.9	98.4	92.0	90.5	97.2	102.3	104.0	102.4	103.6	104.0	104.6	104.1	104.8	101.6	101.8	101.2	3.2 2)
Other	99.7	99.8	100.9	101.8	100.2	99.9	99.8	101.5	101.1	101.7	101.8	101.0	101.5	100.7	101.1	101.2	101.3	33.8 2)

Source: SORS

We expect GDP growth in 2018 to be around 4%

As we have shown, low GDP growth of around 1.9% in 2017 was partially affected by some one -off factors (drought and EPS production decline in the first half of the year). The real growth trend of the economy with which we enter 2018 is, however, somewhat higher and amount to about 3%. In addition to the continuation of these trends, in 2018 we expect the impact of one -off factors to change its course compared to 2017. Namely, the recovery of agriculture from the drought that we expect in 2018, with the establishment of the usual level of electricity production, will lead to a one-off GDP increase of about 1 pp. This, together with the continuation of the growth trend of about 3% will lead to a total GDP growth of about 4%. Such an increase in economic growth in 2018, if it does happen, is good, but it should not be interpreted in a positive way without criticism. It is enough just to point out that in 2018 the basic trend of economic growth is expected to be around 3% and that the average growth of the CEE countries in 2017 was around 4.5%, which suggests that Serbia's economic growth even with the 4% growth in 2018 will continue to structurally lag behind comparable countries.

Industrial production

Industrial production growth of 3.5% in Q4

Industrial production in Q4 recorded an increase of 3.5% (Table T2-6), which was around the average level recorded in 2017. However, these results are somewhat less favorable given that in the first half of the year, poor production performance has temporarily been affected by the decline in electricity production due to the problems in EPS production. Therefore, it was expected that industrial production growth in Q4 would be above the 2017 average, or slightly higher than the achieved one.

Table T2-6. Serbia: Industrial Production Indices, 2009-2017

	Y-o-y indices																	Share
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2016				2017				2016
										Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Total	87.4	102.5	102.2	97.1	105.5	93.5	108.2	104.7	103.5	110.5	102.4	103.7	102.8	100.7	103.1	106.3	103.5	100.0
Mining and quarrying	96.2	105.8	110.4	97.8	105.3	83.3	110.5	104.0	102.7	114.3	99.2	103.4	100.5	93.7	107.3	105.3	105.4	6.5
Manufacturing	83.9	103.9	99.6	98.2	104.8	98.6	105.3	105.3	106.4	106.5	105.9	104.4	105.3	107.3	105.1	107.7	104.9	80.0
Electricity, gas, and water supply	100.8	95.6	109.7	92.9	108.1	79.9	118.8	102.7	93.8	120.9	90.2	102.1	95.9	85.5	94.1	100.7	97.4	13.5

Source: SORS

The previous conclusion, that industrial production in Q4 achieved somewhat worse results than expected, is also confirmed by the analysis of individual sectors. The manufacturing industry, which is the largest and most heterogeneous part of the industry and consequently best describes the actual trends of industrial production, in Q4 had a year-on-year increase of 4.9%, which is the lowest in 2017 (Table T2-6). The average y-o-y growth of the manufacturing industry in the first three quarters of 2017 was almost 7%. Mining and electricity generation in Q4 recorded a y-o-y growth of 5.4 and -2.6% respectively.

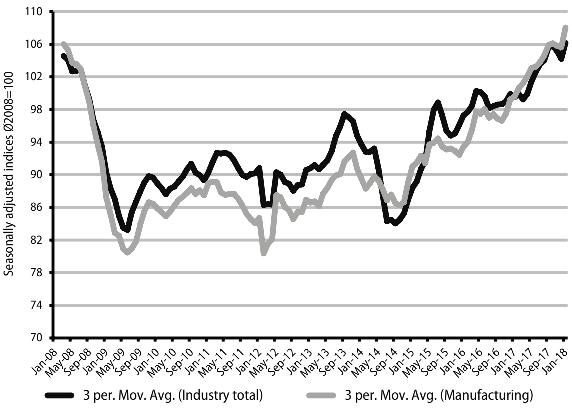
The industry slowdown in Q4 is probably temporary

The observed slowdown of industrial production in Q4 is most likely temporary. Namely, poor performance of the industry was only achieved in December and this slowed down the whole quarterly growth of industrial production. Unlike December, the October and November results were pretty good. For example, the manufacturing industry averaged 7.2% y-o-y growth in October and November and recorded just 0.4% in December. Also, data from January 2018 in which industrial production recorded a high y-o-y growth of more than 10% confirms that the December deceleration was only temporary.

Seasonally adjusted data show that industrial production exceeded its pre-crisis level

The assessment of the industrial production trend in Q4 we made based on the y-o-y indices is confirmed by the seasonally adjusted indices we present in Graph T2-7, ending with January 2018 (last available data). The graph shows that overall industrial production (darker line on the graph) and manufacturing industry (lighter line on the graph) had a certain stagnation at the end of 2017, but the wider trends in industrial production were undoubtedly positive (slowdown occurred at a relatively high level of production, and strong seasonally adjusted growth continued again in January). Also, the graph shows that the overall industry in Q4 finally exceeded its highest, pre-crisis, level of production from the first half of 2008. Although the total volume of production is the same, in contrast to 2008 the structure of this production in 2017 is much more favorable as it is far more oriented towards exports and therefore more competitive.

Graph T2-7. Serbia: Seasonally Adjusted Industrial Production Indices, 2008-2017



Source: SORS

The production of intermediate products continued with its high growth, while other special purpose groups slowed down

Observed by the purpose of industrial products (Table T2-8), in Q4 majority of special purpose groups slowed down their growth. The only group which continued its strong y-o-y growth from the previous quarter in Q4, of almost 10%, is the production of intermediate goods. Other purpose groups in Q4 recorded a fairly moderate y-o-y growth - ranging from 0% (energy production) to 3.5% (production of investment goods). It is interesting to note that the production of investment goods significantly slowed down its growth compared to Q3 (when it was 14.6%), which at first glance is not in line with data on the strong acceleration of investments growth. This suggests that the increase in investments in Q4 was primarily influenced by the growth of construction activity, although it should not be forgotten that the industrial group production of investment goods also includes the production of motor vehicles (primarily FAS), which in Serbia is mainly oriented towards exports.

Table T2-8. Serbia: Industrial Production by Purpose, 2009-2017

	Y-o-y indices																
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2016				2017			
										Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total	87.4	102.5	102.1	97.1	105.5	93.5	108.2	104.7	103.5	110.5	102.4	103.7	102.8	100.7	103.1	106.3	103.5
Energy	98.8	97.7	106.2	93.6	113.2	82.6	116.9	101.9	97.2	118.3	94.3	96.5	97.1	88.0	95.2	108.7	100.1
Investment goods	79.3	93.6	103.2	103.8	127.6	95.9	103.0	101.6	109.2	97.7	100.3	104.7	102.6	113.0	107.0	114.6	103.6
Intermediate goods	78.4	109.2	102.2	91.2	99.0	96.8	105.3	109.5	110.0	111.2	110.6	108.0	106.5	110.3	109.5	110.3	109.3
Consumer goods	86.8	102.1	95.4	103.2	100.7	100.7	104.0	105.6	102.4	107.4	103.9	107.0	105.6	105.8	105.3	98.7	100.9

Source: SORS

Trends

Construction activity

According to SORS construction activity growth strongly accelerated to almost 18% in Q4

According to the SORS estimates construction activity in Q4 achieved a very high real y-o-y growth of 17.8% (Table T2-5). This data had an impact on the observed acceleration of investments growth and increased economic activity growth in Q4, and also represents a strong turnaround in construction activity compared to the first half of the year when the construction industry recorded a declined according to SORS data. However, the real trend of construction activity is actually very difficult to evaluate correctly. The problem with the monitoring of this sector of the economy is that a large number of small private companies that are quickly set up and quickly closed operate within it, which official statistics has a difficulty to monitor, and a good part of the activity is carried out in the gray zone, out of the sight of the statistics. In addition, construction activity in Q4 (as well as Q1) seasonally depends on meteorological conditions, i.e. the number of working days in these quarters where construction works can be performed unobstructed by weather conditions. A more detailed QM analysis shows that there is a real improvement in construction trends in the second half of 2017, especially in Q4, although these improvements are probably not as high as official statistics shows.[2]

For a somewhat more reliable monitoring of the construction activity trend in QM we analyze a whole series of additional indicators related to this activity (the value of construction works in Serbia, the movement of registered employment, cement production and others). These additional indicators indeed show improvements in the second half of the year, and especially in Q4, but also show that these improvements were probably not as extreme as the official data on construction growth show. The production of cement is presented in Table T2-9. This production (along with its usual oscillations) indicates that construction activity probably did not fall at all in the first six months of 2017, but also that there was some acceleration in construction activity in the second half of the year. A similar conclusion is also made based on the analysis of registered employment in construction. In the first half of the year the number of registered employees increased by about 1%, which would be unlikely if the construction activity really recorded a fall, and in the second half of the year the growth of registered employment in construction slightly accelerated to about 2%.

Table T2-9. Serbia: Cement Production, 2001-2017

	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

Source: SORS

Probably the real acceleration of construction activity is not so great, but positive trends are undeniable

Based on all of the above we believe that the statistics data on total construction growth in 2017 of around 6% is roughly appropriate. However, trends throughout the year were in all probability somewhat more modest. Most probably construction activity grew by 5% in the first half of the year (instead of declining), and then in the second half of the year it accelerated to almost 10% (instead of over 10% growth).

In 2018 we expect construction activity growth to be close to 10%. The acceleration of construction activity in 2018 is indicated by better trends at the end of 2017 with which we enter 2018, the State announcements on increasing investments in infrastructure (public investments increase from 3% of GDP to 3.7% of GDP) but also good market conditions for investments (a favorable economic cycle throughout Europe, still low interest rates on borrowing and so on).

2 According to SORS construction activity recorded a decline by about 3% in the first half of the year and a growth of 12% in the second half of the year