

## 5. Prices and The Exchange Rate

There was a modest price growth of 0.1% in the last quarter of 2018, but the first two months of this year saw a slight acceleration in inflation. Year-on-year December and average inflation have stopped at the level of 2%. Last year's inflation was largely caused by the increase in the prices of food, oil and tobacco products, which means that inflationary pressures in the economy are still weak. This is confirmed by low and stable underlying inflation (measured by the consumer price index excluding food, alcoholic beverage, tobacco and energy), which was moving within a narrow interval of about 1% throughout 2018. In the first two months of 2019, year-on-year inflation accelerated to 2.4%, primarily thanks to a rise in food prices that was higher than usual seasonal and tobacco products due to a January increase in excise taxes, whereas the underlying inflation reached 1.3% in February. A gradual acceleration of inflation this year is in line with our expectations, given that there is a prediction of further growth in private consumption (partly due to a strong growth in public sector wages and pensions) and exhaustion of disinflationary impact of dinar appreciation in the previous period. However, we estimate that in the most of 2019 inflation will continue to move in the lower half of the NBS target interval ( $3 \pm 1.5\%$ ) - slightly above last year's 2% on average - which is why we should not expect a correction of the key policy rates, at least in the first half of the year. In the whole 2018, despite strong appreciations pressures, the Dinar only slightly strengthened against the Euro (by 0.2%), due to frequent NBS interventions in the interbank foreign exchange market. Although the prevention of excessive strengthening of the dinar in 2018 by a net purchase of 1.580 million euros was a good policy, the fact that NBS intervenes at first signs of depreciation pressures is problematic - as happened in January of this year, when 130 million euros were sold. By doing this, NBS continues to implement a firm foreign exchange rate policy and partly contributes to the economically unfavorable trend of real appreciation of the domestic currency, which has been present since Q4 2016. Such a policy would be justified if the exchange rate of the dinar was at equilibrium level, that is, if the external balance was in balance, but that is not the case. In 2018, the dinar realistically strengthened against the euro by 1.2%, and by an additional 1.8% in the first two months of this year - which negatively affects the competitiveness of domestic economy, and this extended period of real dinar appreciation is one of the important factors standing behind the worsening of deficit in foreign trade exchange over the past year.

### Prices

*The prices in Q4 slightly increased on average, thus both December and average inflation amounted to the expected 2% in 2018*

The last quarter of 2018 recorded a modest increases in a small number of products, which, along with the decline in the prices of petroleum products due to a recent drop in world oil prices, led to inflation of only 0.1% in Q4. In accordance with our previous expectations, total inflation in December stopped at a level of 2%, as was the amount of average inflation in 2018 (Table T5-1). When groups of products are observed, the increase in prices in the previous year was mainly driven by the price increase of food products (by 2.7%, contribution of 0.8 pp), transport services (by 4%, contribution of 0.5 pp) and alcoholic beverages and tobacco by (5.2%, contribution 0.4 pp). The fact that total inflation in 2018 was largely conditioned by the movement in food prices, petroleum products and legal adjustment of excise taxes on tobacco products clearly suggests that domestic inflationary pressures are still relatively weak. This is confirmed by low underlying inflation (measured by the consumer prices index excluding food, alcoholic beverages, tobacco and energy), which was fairly stable throughout the entire year and was moving in a narrow interval of around 1%.

*Inflation was slightly increasing in the first two months of 2019*

In the first two months of 2019 prices increased by 1.1% on average, which is why year-on-year inflation accelerated slightly to 2.4%. Although this is, to a large extent, the result of a more noticeable increase in the prices of food than it is seasonally usual and increase in the prices of tobacco products due to a January increase in excise duties, it is also possible to expect moderate

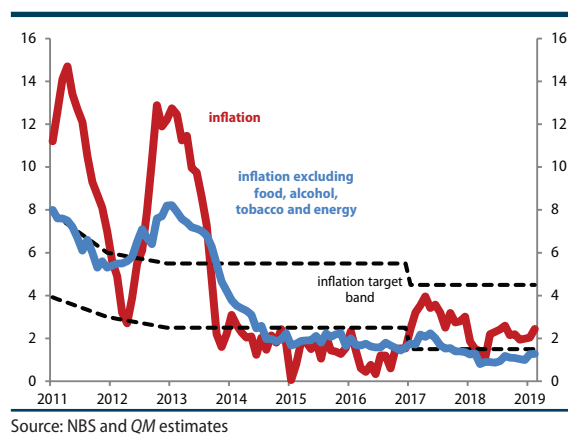
**Table T5-1. Serbia: Consumer Price Index, 2011-2019**

Consumer price index					
	Base index (avg. 2006 =100)	Y-o-y growth	Cumulative index	Monthly growth	3m moving average, annualized
<b>2011</b>					
dec	154.3	7.0	7.0	-0.7	2.5
<b>2012</b>					
dec	173.1	12.2	12.2	-0.4	9.9
<b>2013</b>					
dec	176.9	2.2	2.2	0.2	-0.9
<b>2014</b>					
dec	180.0	1.8	1.8	-0.4	-2.4
<b>2015</b>					
dec	182.8	1.6	1.6	-0.2	-1.9
<b>2016</b>					
dec	185.6	1.5	1.5	-0.2	1.8
<b>2017</b>					
mar	190.0	3.5	2.4	0.2	9.8
jun	191.0	3.6	2.9	0.2	2.1
sep	190.7	3.2	2.7	0.1	-0.6
dec	191.2	3.0	3.0	0.1	1.1
<b>2018</b>					
jan	191.8	1.9	0.3	0.3	1.3
feb	192.4	1.5	0.6	0.3	2.7
mar	192.7	1.4	0.8	0.2	3.2
apr	193.5	1.0	1.2	0.4	3.6
maj	194.7	2.2	1.8	0.6	4.9
jun	195.4	2.3	2.2	0.4	5.7
jul	194.8	2.4	1.9	-0.3	2.7
avg	195.4	2.6	2.2	0.3	1.5
sep	194.8	2.1	1.9	-0.3	-1.2
oct	195.4	2.2	2.2	0.3	1.2
nov	194.8	1.9	1.9	-0.3	-1.2
dec	195.0	2.0	2.0	0.1	0.4
<b>2019</b>					
jan	195.7	2.0	0.4	0.4	0.6
feb	197.1	2.4	1.1	0.7	4.8

Source: SORS.

*Due to prevailing weak inflationary pressures, underlying inflation remained at a record low level of about 1% in Q4*

Underlying inflation (measured by the consumer price index excluding food, alcohol, tobacco and energy products) was very stable standing at the level of about 1% (Graph T5-2). As we have already mentioned, last year's total inflation was largely conditioned by the increase in price of a limited number of products that are excluded from the calculation of underlying inflation - fruits and vegetables, petroleum products and regulated prices (tobacco products) - which confirmed

**Graph T5-2. Serbia: Y-o-y Inflation Rate and Underlying Inflation and the NBS Target Band 2011-2019**

Source: NBS and QM estimates

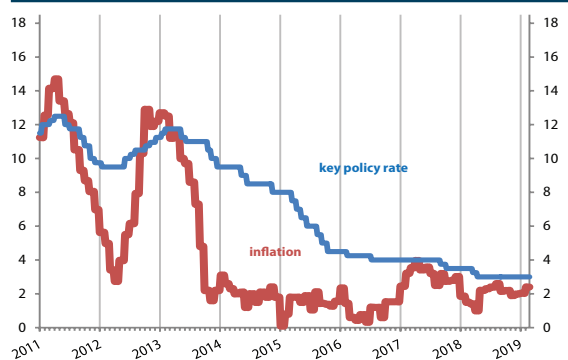
acceleration of total inflation this year. The key inflationary factors in 2019 should be a continuation of domestic demand growth (which will be partly contributed by a significant increase in salaries in public sector and pensions) and depletion of a strong disinflationary impact of the dinar appreciation in the previous period. Faster demand growth than production growth largely led to the growth of foreign trade deficit, but with a certain time shift also influenced the increase in inflation. On the other hand, a sharp decline in world oil prices at the end of 2018 and last year's good agricultural season will probably slow down total inflation through base effect. Taking these factors into account, we estimate that, in most of 2019, inflation will nevertheless move within the lower half of the NBS target interval ( $3 \pm 1.5\%$ ), but on average slightly above last year's 2%.

the fact that general inflationary pressures were still weak in the past year. Although private consumption in 2018 increased by 3.3% in real terms, it still represents the growth in accordance with the trend of non-agricultural GDP and therefore insufficient to generate stronger inflationary pressures. The exchange rate was highly stable over the past year (the dinar actually nominally strengthened against the euro by 0.2%), following a strong appreciation in 2017, which also contributed to underlying inflation standing at a record low level throughout the year. In January of this year, underlying inflation slightly accelerated to 1.3%, which agrees with our expectations

for 2019. Namely, further growth in private consumption is expected this year, which should be contributed by fiscal policy measures (noticeable increase of wages in budget sector by 9% on average and pensions) and full effect of relaxation of monetary policy in 2018 (through the growth of credit activity). In 2019, we also expect exhaustion of disinflationary impact of strong dinar appreciation from the previous period, which as a result would have a greater impact of import prices on the underlying inflation movement. The final impact on the movement of underlying inflation will also depend on factors on the supply side (such as the movement of the price of petroleum or electricity for the economy) that determine the costs of production, but this year it is certainly possible to expect its gradual approach to the NBS target interval ( $3 \pm 1.5\%$ ).

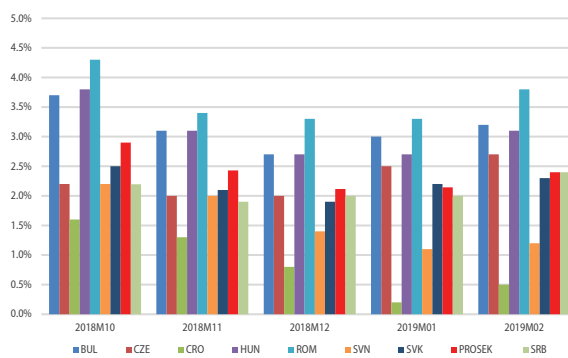
*Following the relaxation of monetary policy in March and April, the NBS retained the key policy rate at 3% until the end of 2018*

**Graph T5-3. Serbia: NBS Reference Interest Rate and y-o-y Inflation Rate, in %, 2011-2019**



Source: NBS

**Graph T5-4. Inflation in Serbia and selected countries in Central and Eastern Europe**



Source: Eurostat, SORS and QM calculations

FED representatives that 2019 will be followed by more noticeable monetary policy tightening are now somewhat softened, while the effects of quantitative incentives of the ECB (although formally completed in December 2018) are likely to be felt in the greater part of this year. It also suggests that the key policy rate could remain unchanged (3%) at least in the first half of 2019.

After a relatively strong acceleration of inflation in the CEE region in the first half of last year (from 2.2% in January to 3.1% in June), over the second part of 2018, inflation slowed down steadily to December's 2.1% (Graph T5-4). When individual countries are observed, at the end of 2018 inflation was the highest in Romania (3.3%), and lowest in Croatia (0.8%) - while Serbia's December inflation rate of 2% is approximately the average of the region. Another common thing for the whole region is that the key contribution to inflation in previous year was made by the increase in prices of petroleum (due to a rise in world oil prices at the beginning of 2018) and food products. In addition, in some countries domestic factors also generated higher inflationary factors - such as stronger growth in private consumption, very favorable trends in the labor market (the unemployment rate is in many countries at the historically lowest level),

*Inflation in Serbia reached the average price increase in the countries of Central and Eastern Europe by the end of 2018*

Sharp slowdown in underlying inflation and appreciation pressures on the dinar encouraged the National Bank of Serbia that last year twice cut its benchmark interest (in both March and April by 0.25 basis points) - from 3.5% to 3% (Graph T5-3). In remaining months of past year and at the beginning of 2019, there was no further relaxation of monetary policy, as inflation ranged within the target interval, and there was a moderate recovery in the credit activity of the economy. We estimate it is unlikely that there will be additional correction in key policy rate in the first half of 2019 - inflation will continue to move in the lower half of the targeted interval, while possible pressures on the dinar exchange rate, as in 2018, are likely to be neutralized by NBS interventions in the interbank foreign exchange market. Namely, in the past year, the NBS prevented excessive strengthening of the dinar against the euro by net purchase of 1,580 million, and similar practice continued in January when it eased depreciation pressures on the dinar by selling 130 million euros. Possible changes in key policy rate will significantly depend on developments in international environment, primarily decisions of leading central banks - the US Fed and the European Central Bank. The initial statements of

but also depreciation of national currencies. Consequently, several central banks was already forced to tighten monetary policy in the past year. For example, in the Czech Republic, the key policy rate was increased five times by 0.25 b.p. (from 0.5% to 1.75%), while in Romania the key policy rate increased from 2% to 2.5% in 2018. On the contrary, the economic recovery in Serbia was lagging behind the region, so the inflation was much lower during the greater part of 2018, which is why the intensification of domestic monetary policy is likely to be delayed when compared to the region.

**Table T5-5. Serbia: Consumer Price Index: Contribution to Growth by Selected Components**

	Share in CPI (in %)	price increase in Q4 2018.	Contributio n to overall CPI increase (in p.p.)	price increase in january 2019.	Contributio n to overall CPI increase (in p.p.)	price increase in febraury 2018.	Contributio n to overall CPI increase (in p.p.)
Total	100.0	0.1	-0.3	0.4	0.4	0.7	0.7
Food and non-alcoholic beverages	31.7	0.3	0.1	1.3	0.4	2.0	0.6
Food	28.1	0.2	0.1	1.4	0.4	2.3	0.6
Alcoholic beverages and tobacco	6.9	-0.2	0.0	0.0	0.0	2.6	0.2
Tobacco	4.4	0.0	0.0	0.0	0.0	3.8	0.2
Clothing and footwear	4.7	2.2	0.1	-1.3	-0.1	-1.5	-0.1
Housing, water, electricity and other fuels	13.8	0.2	0.0	0.1	0.0	0.0	0.0
Electricity	5.1	0.0	0.0	0.0	0.0	0.0	0.0
Furniture, household equipment, routine maintenance	4.9	0.1	0.0	0.3	0.0	0.1	0.0
Health	4.9	0.6	0.0	0.2	0.0	0.2	0.0
Transport	12.4	-1.0	-0.1	-0.8	-0.1	0.0	0.0
Oil products	5.9	-3.4	-0.2	-2.2	-0.1	0.1	0.0
Communications	5.0	-0.4	0.0	0.3	0.0	-0.2	0.0
Other items	15.9		0.0		0.1		0.0

Source: SORS and QM estimates

**In Q4 2018, there was a slight change in the price of a limited number of products and services, therefore it recorded a low inflation of 0.1%**

The last quarter of 2018 continued with the low inflation trend that was set in the second half of the year and prices increased by only 0.1% on average (Table T5-5). When individual months are observed, October inflation was 0.3%, then in November we saw the average consumer basket decrease by the same amount (-0.3%), whereas December prices increased by an average of 0.1%. The highest contribution to inflation in Q4 was made by a seasonally usual price increase of food products (by 0.3%, contribution of 0.1 p.p.) and clothing and footwear (by 2.2%, contribution of 0.1 p.p.). Decrease in the prices of goods and services in transport sector by about 1% worked in opposite direction (contribution -0.1 pp). Namely, during the last quarter of 2018, there was a sharp drop in oil prices on the world market (by around 30%), which also affected the reduction in domestic prices of petroleum products to a lesser extent (on average by 3.4%). Changes in the prices of other products and services were negligible in Q4, and their contribution to total inflation is mainly annulled. At the end of Q4, year-on-year inflation stopped at the level of 2% in accordance with our expectations.

**At the beginning of 2019, inflation accelerated slightly, mainly due to increases in the prices of food and tobacco products**

January recorded inflation of 0.4% (Table T5-5), largely due to a seasonally usual increase in food prices by 1.3% (contribution of 0.4 p.p.). The increase in food prices in this month is almost entirely the result of the increase in fresh vegetables prices by 8.4%. Also, the prices of goods and services from the group of recreation and culture increased by 1.3% (contribution of 0.1 p.p.), primarily due to the increase in the price of tourist package packages by 7.6%. A seasonal decline in the prices of clothing and footwear by about 1.3% (contribution of -0.1 p.p.), i.e. decline in the prices of petroleum products by an additional 2.2% (contribution of -0.1 pp), which is actually transferred effect of a sharp drop in world oil prices that happened at the end of last year, had a disinflationary effect. Prices of other products and services slightly increased, and their cumulative contribution to January inflation amounted to 0.1 p.p. In February, prices increased by 0.7% on average, again primarily due to a food price increase by about 2% (contribution of 0.6 p.p.). In this month, prices of tobacco products also increased by 3.8% (contribution of 0.2 p.p.) due to a regular increase in excise duties in January. In the end, the seasonal decline in the prices

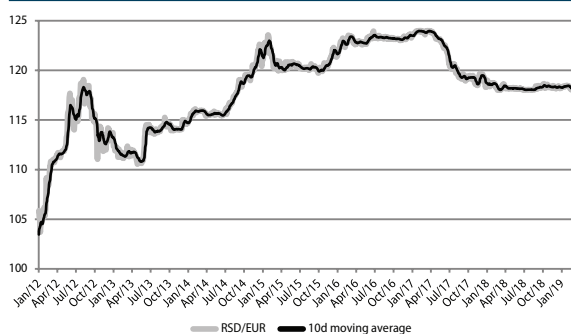
of clothing and footwear continued by an additional 1.5%, which slowed down the inflation by 0.1 p.p. in this month. The increase in the prices in the first two months of 2019 was more noticeable than in the same period of previous year, which is why year-on-year inflation slightly accelerated - from 2% in December to 2.4% in February.

### The Exchange Rate

*During Q4, the dinar weakened slightly against the euro with minimal intervention by the National Bank of Serbia*

The appreciation pressures on the dinar, which were present in the greater part of 2018, weakened in Q4, and the exchange rate was mostly stable and without major intervention by the NBS on the interbank foreign exchange market. During Q4, the dinar nominally strengthened against the euro by 0.2% (i.e. weakened by 0.2% when compared to the quarter average), while the NBS appeared on IFEM both as a buyer (45 million euros) and seller (60 million euro) to prevent excessive daily fluctuations in foreign exchange rate. The seasonal growth in demand for foreign currency at the beginning of 2019 caused depreciation pressures on the dinar, but the domestic currency weakened by only 0.2% in January, thanks to the NBS selling 130 million in the IFEM. The NBS thus continued to implement the firm foreign exchange rate policy from last year, when it successfully maintained the exchange rate in the narrow interval of 118-118.5 dinars per euro with its frequent interventions (Graph T5-6). At the end of the year, the dinar nominally appreciated by 0.2% when compared to the end of 2017, i.e by 2.6% if we observe average annual foreign exchange rates. The dinar weakened by 1.7% against the US dollar in Q4, ie by 2.1% when compared to the quarter average. Thanks to the strengthening of the US currency against the euro in 2018, the dinar weakened against the dollar by 4.3% annually. Similar trends are recorded in the dinar exchange rate against the Swiss franc, as the domestic currency weakened by 0.8% in Q4 (by 0.9% when compared to the quarter average), while the dinar depreciated by 3.6% annually.

**Graph T5-6. Serbia: Daily RSD/EUR Exchange Rate, 2012-2019**

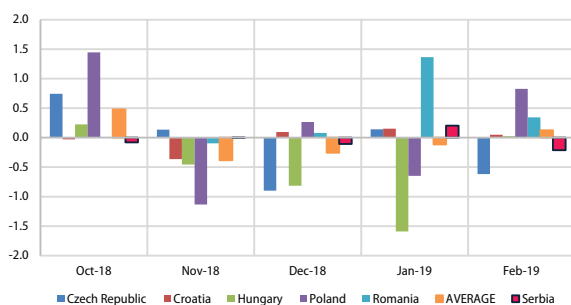


Source: NBS

*In spite of the strong appreciation pressures in 2018, the Dinar was one of the most stable currencies in the region, but the growth of the external deficit indicates that it was not stabilized at the equilibrium level*

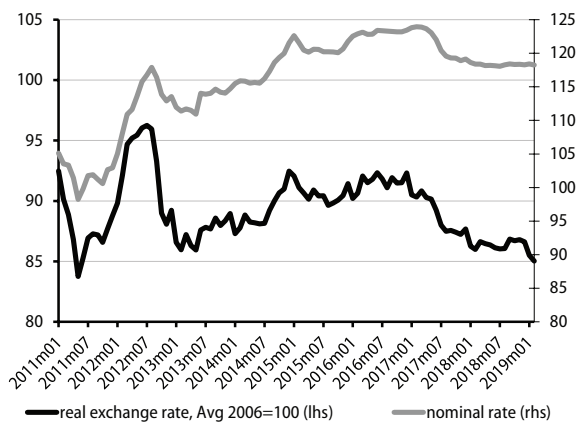
In 2018, the dinar strengthened slightly against the euro by 0.2% in nominal terms, while monthly volatility of the dinar exchange rate was generally less pronounced compared to the currencies of other CEE countries with the same exchange rate regime (Graph T5-7) . On the other hand, the basket of currency of the observed countries in 2018 nominally weakened against the euro by 1.4% (Hungarian Forint and Polish Zloty by over 3%), while, in addition to the dinar, only the Croatian kuna nominally strengthened against the European currency (by 0.4%). Although several factors generated strong appreciation pressures on the dinar (increased FDI inflows, eurobond refinancing with government borrowing in the domestic financial market, and others), monthly oscillations of the exchange rate were, as a rule, within a narrow interval of  $\pm 0.2\%$  (except in February). This was mainly contributed by the NBS consistently implementing its policy of de facto targeting the exchange rate level, although the official commitment is to manage the exchange rate by floating. Thus, in order to ease the appreciation pressures on the dinar, in 2018 the NBS bought a total of EUR 1,835 million, i.e. sold EUR 285 million to prevent the weakening of the domestic currency (mainly

**Graph T5-7. Nominal exchange rate change (in %) in selected countries**



Source: Eurostat, NBS and QM calculations  
Note: an increase represents depreciation

**Graph T5-8. Serbia: Nominal and Real RSD/EUR Exchange Rate, Monthly Averages, 2011-2019**



Source: NBS, SORS, Eurostat and QM estimates  
Note: an increase represents depreciation

**There was a slight real appreciation of the dinar against the euro by 0.5% in Q4, a total of 1.2% in 2018**

at the beginning and at the end of 2018). Economically speaking, the prevention of excessive dinar strengthening is currently a good policy, given that the prolonged period of unfoundedly strong dinar (since 2016) already adversely affects the price competitiveness of the economy and growth of Serbia's trade deficit. The problem is, however, in the fact that the NBS responds to the first signs of depreciation pressures on the dinar, because it is not in line with the policy of directing the exchange rate towards a level that balances the country's external balance. To that end, coordination between fiscal and monetary policy needs to be improved.

In the last quarter of 2018, the dinar appreciated in real terms against the euro by 0.5%, or by 1.2%, if we observe the whole last year (Graph T5-8). Although the trend of real appreciation of the dinar is slowed down when compared to 2017, due to the real appreciation in the previous two years, the dinar exchange rate is excessively strong when compared to the competitiveness of the Serbian economy. The Croatian and Romanian currencies appreciated to about the same extent, while the currencies of the remaining CEE countries with a similar exchange rate regime weakened against the euro in real terms during 2018 - Polish zloty by 2.7%, Hungarian forint by 1.8% and Czech crown by 0.6%. In addition, the real dinar strengthening continued in the beginning of 2019 - by 1.8% in total during the first two months. Historically, in February, the dinar reached the highest real value in relation to the euro since mid-2011. The problem with this trend of the real foreign exchange rate is that it does not have a strong foothold in macroeconomic fundamentals (labor productivity is actually reduced), which then adversely affects the competitiveness of the domestic economy when compared to the EU countries and other important trading partners. We estimate that this is one of the important factors (together with growth of world oil prices and domestic demand) which led to an increase in Serbia's foreign trade deficit in 2018 by about 2 p.p. of GDP. On the other hand, we have economies such as the Czech Republic, Hungary or Poland, whose currencies weakened in real terms against the euro in the past year, which, along with notable increase in productivity over the past few years, significantly improved their competitiveness and export performance. Although stable nominal exchange rate of the dinar against the euro has its advantages, we believe that slight real depreciation would have significantly more positive effects on the domestic economy and that the NBS should take this into account when formulating its exchange rate management policy.