

5. Prices and the Exchange Rate

Inflation in Q2 stabilized at the level slightly above the target value of the National Bank of Serbia and at the end of the quarter amounted to 3.6%. After deflation in July (- 0.4%) and slight inflation in August (0.2%), year-on-year inflation dropped to 2.5%. A slowdown in inflation during Q2 was contributed by a new drop in world energy prices, while most significant disinflation factors in July and August were a seasonal fall in the prices of food and expressed dinar appreciation. Underlying inflation (measured by the consumer price index, excluding the prices of food, energy, alcohol and tobacco) was low and stable as well at the level of about 2%, while in August it dropped to a lower limit of the NBS target band and amounted to 1.5%. Low inflation in last several months, and especially strong appreciation pressures to dinar exchange rate, enabled in early September a first decrease in a key policy rate in 2017- from 4% to 3,75% - which is estimated as an adequate response by monetary policy. In the coming months, we expect a strengthening of at moment relatively low inflationary pressures due to a moderate relaxation of monetary policy, further growth of domestic demand and expected seasonal depreciation of the dinar - but the inflation will continue to move within the NBS target band by the end of the year. In Q2, the dinar nominally appreciated against the euro by 2.5%, a trend that continued even during the summer months - despite the fact that the NBS in the observed period bought 960 million Euros on the interbank foreign exchange market. From the beginning of the year, the dinar nominally strengthened against the euro by 3.5%, whereby the nominal appreciation against the dollar was even more pronounced (14.3% in the first eight months of 2017). Since inflation in Serbia during 2017 was higher than in the eurozone countries, in Q2, the dinar strengthened in real terms against the euro by 1.7% and in the first eight months by as much as 5.3%. Such a strong real appreciation of the dinar accompanied by slower productivity growth when compared to EU countries, the most important trade partners of Serbia, seriously aggravates the international competitiveness of the domestic economy.

Prices

Inflation in Q2 relatively low, and similar trend continued in July and August

At the end of the second quarter of 2017, year-on-year inflation was 3.6% and remained almost unchanged when compared to the end of the first quarter of this year (Table T5-1). The average inflation in the first half of this year amounted to 3.4% and was slightly above the target value of the National Bank of Serbia. On a quarterly basis, Q2 recorded a relatively low inflation of 0.5% due to the prevailing disinflationary pressures. After a rise in oil prices at the end of 2016 and stabilization in the first months of this year, Q2 recorded another drop (a similar thing occurred in the basic metal markets). The prices of oil futures suggest that by the end of 2017 there will be no major fluctuations in oil price movements, which is why the impact of their last decrease to domestic inflation has been temporary and already largely exhausted. Domestic factors that mostly contributed in stabilizing inflation in Q2 were dinar appreciation and seasonal drop in the prices of food. On a monthly level, after a relatively high inflation of 0.8% in April, a deflation of -0.5% was recorded in May and a slight inflation in June of 0.2%. Monthly price growth in April (mainly due to the increase in prices of fruits, vegetables and meat) contributed to the increase in year-on-year inflation to 4% (which is the highest level since October 2013). May's inflation and mild inflation in June enabled the stabilization of year-on-year inflation close to the average in the current part of the year of about 3.5%, so in Q2 inflation remained within the limits of the new target band of the National Bank of Serbia (NBS). Similar trends continued in the summer, so in July recorded a deflation of -0, 4% and August a slight increase in prices of 0.2%.

Underlying inflation (measured by the consumer price index excluding prices of food, alcohol, tobacco and energy) was stable in Q2 and amounted to 2% in June, so since the beginning of 2017 it has been below the middle of target interval of the NBS (Graph T5-2). There was a slight decrease in underlying inflation to 1.5% in July and August, which is a lower limit of the NBS tar-

NBS Underlying inflation was also stable in Q2 at the level of 2%, which is still closer to a lower limit of the target interval of the NBS

Table T5-1. Serbia: Consumer Price Index, 2011-2017

	Consumer price index				
	Base index (avg. 2006 =100)	Y-o-y growth	Cumulative index	Monthly growth	3m moving average, annualized
2011					
dec	154.3	7.0	7.0	-0.7	2.5
2012					
dec	173.1	12.2	12.2	-0.4	9.9
2013					
dec	176.9	2.2	2.2	0.2	-0.9
2014					
dec	180.0	1.8	1.8	-0.4	-2.4
2015					
mar	182.4	1.8	1.3	0.7	5.5
jun	183.8	1.9	2.1	0.5	3.1
sep	183.7	1.4	2.1	0.0	-0.3
dec	182.8	1.6	1.6	-0.2	-1.9
2016					
mar	183.5	0.6	0.4	-0.1	1.5
apr	184.2	0.4	0.8	0.4	0.9
may	184.3	0.8	0.8	0.1	1.3
jun	184.4	0.3	0.9	0.1	2.0
jul	184.3	1.2	0.8	-0.1	0.2
aug	185.9	1.2	1.7	0.9	3.5
sep	184.8	0.6	1.1	-0.6	0.9
oct	186.1	1.5	1.8	0.7	4.0
nov	185.9	1.5	1.7	-0.1	0.0
dec	185.6	1.5	1.5	-0.2	1.8
2017					
jan	188.3	2.4	1.5	1.5	4.8
feb	189.6	3.2	2.2	0.7	8.2
mar	190.0	3.5	2.4	0.2	9.8
apr	191.5	4.0	3.2	0.8	7.0
may	190.6	3.4	2.7	-0.5	2.1
jun	191.0	3.6	2.9	0.2	2.1
jul	190.2	3.2	2.5	-0.4	-2.7
aug	190.6	2.5	2.7	0.2	0.0

Source: SORS.

strong growth in government consumption would more probably reflect the increase in imports and inflation, rather than it would contribute to the acceleration of economic growth.

Underlying inflation and strong appreciation pressures on the dinar in previous months made room to reduce the key policy rate to 3.75%

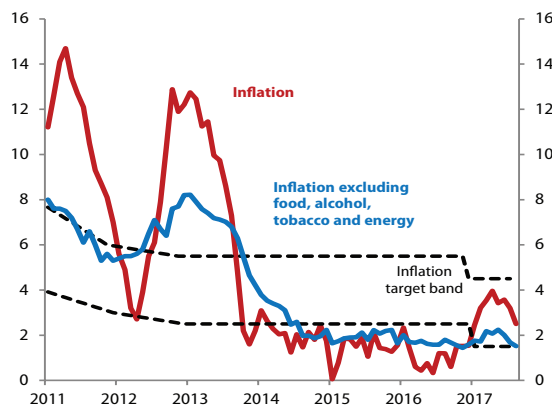
During Q2, National Bank of Serbia did not change the restrictiveness of monetary policy and key policy rate remained at the level of 4% until the end of August (Graph T5-3). However, low inflation and particularly strong appreciation pressures on the dinar in the last five months (NBS bought 960 million euros in the interbank foreign exchange market in the observed period) affected the decision to reduce the key policy rate in early September to 3.75%. Increase in the expansiveness of monetary policy at this moment is somewhat surprising bearing in mind the indicators that show a gradual increase in domestic inflationary pressures, primarily labor market improvements (employment growth and stable y-o-y growth in real wages of around 3%), solid growth in credit activity of banks and in the expected seasonal depreciation pressure on the dinar by the end of the year. In addition, although disappointing economic growth was achieved in the first half of 2017, this is largely a consequence of one-off factors (a drop in agricultural production due to a drought and problems in the energy sector at the beginning of the year), and not a result of substantial worsening of trends in the real sector of the economy.

Stabilized inflation in Q2, which supports the previous estimate that emphasized acceleration of inflation in Q1 was temporary

There was a modest growth in the price level of 0.5% in the second quarter of 2017 (Table T5-4) and mostly due to a relatively high inflation in April (0.8%), while May recorded a deflation (-0.5%) and June recorded a low inflation. The main inflation driver in Q2 was the increase in food prices by 1.4% (contribution of 0.4 pp), led by seasonal increase in fruit prices (28.3%, contribution of 0.6 pp) and meat (4.5% contribution of 0.3 pp). The largest disinflation impact came from a seasonal fall in the price of vegetables (a decrease of 8.4%, contribution of -0.4 pp) and

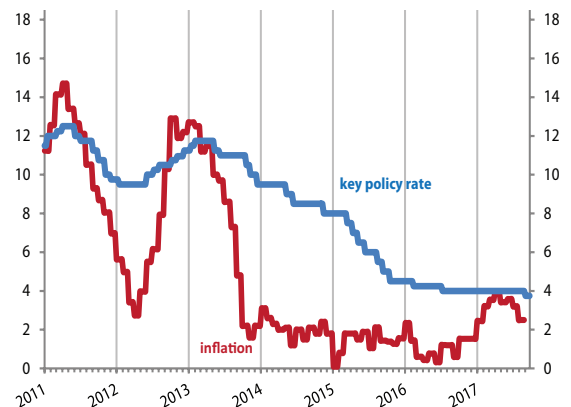
get band. The main factors affecting the inflation to be stable in the previous period (moving in a narrow range from 1.4% to 2.3% since August 2014) are a stable and almost fixed dinar exchange rate and moderate growth in domestic demand. Such trends were recorded in Q2 of 2017 as well: the dinar actually strengthened against the euro, while real year-on-year growth in domestic demand remained relatively modest, amounting to 1.9%. In a following period we expect a domestic demand and its impact to the inflation movement to be decisively dependent on monetary policy, which should be slightly restrictive. However, bearing in mind the current announcements about a large increase in pensions and wages in public sector, it is still not possible to accurately assess the character of fiscal policy in the next year, after the arrangement with the IMF expires. Past experiences with fiscal expansion in Serbia point to the conclusion that the fiscal multiplier is very low, so a possible

Chart T5-2. Serbia: Y-o-y Inflation Rate and Underlying Inflation and the NBS Target Band 2011-2017



Source: NBS and QM estimates

Chart T5-3. Serbia: NBS Reference Interest Rate and y-o-y Inflation Rate, in %, 2011-2017



Source: NBS

a reduction in solid fuel prices after their rise in winter months (a decrease of 5%, contribution -0.1 pp). The prices in the remaining groups of products and services in Q2 did not significantly change, and the impact of these changes on inflation is mainly mutually beneficial.

July recorded a deflation of -0.4%, and August a slight price growth of 0.2%

There was a drop in the price level of 0.4% in July 2017, mostly due to a fall in the prices of food (a decline of 2.2%, contribution of -0.6 pp), clothing and footwear (a decline of 1.2%, contribution -0.1 pp) and oil derivatives (a decline of 1.3%, contribution -0.1 pp). The increase in the price level in July was contributed by the increase in the prices of tobacco products due to the adjustment of the excise amount (a growth of 4.3%, contribution of 0.2 pp) and price increase in the group of recreation and culture (by 3.5%, contribution 0.2 pp). The decline in food prices is of seasonal character and comes from the decline in the prices of vegetables (by 12.1%, contribution -0.6 pp) and fruits (by 3.3%, contribution slightly below 0.1 pp). Given that the seasonal effect of changes in the prices of certain products (fruits, vegetables, meat, clothing and footwear, tourist arrangements) usually occurs in the same months of the year, this generally does not have a significant impact on the calculation of the y-o-y inflation rate, but is largely responsible for oscillations in the movement of monthly inflation rates. Deflation in July contributed to the reduction of y-o-y inflation to 3.2%.

Table T5-4. Serbia: Consumer Price Index: Contribution to Growth by Selected Components

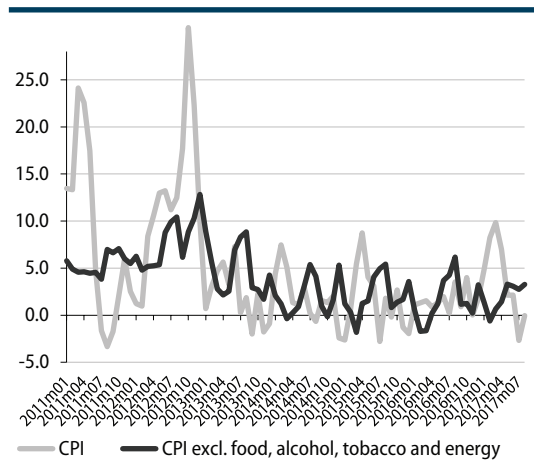
	Share in CPI (in %)	price increase in Q2 2017	Contribution to overall CPI increase (in p.p.)	Price increase in July 2017	Contribution to overall CPI increase (in p.p.)	Price increase in August 2017	Contribution to overall CPI increase (in p.p.)
Total	100.0	0.5	0.5	-0.4	-0.4	0.2	0.2
Food and non-alcoholic beverages	32.0	1.2	0.4	-2.0	-0.6	0.2	0.0
Food	28.4	1.4	0.4	-2.2	-0.6	0.2	0.1
Alcoholic beverages and tobacco	7.3	0.0	0.0	2.7	0.2	0.0	0.0
Tobacco	4.6	0.0	0.0	4.3	0.2	0.0	0.0
Clothing and footwear	4.5	1.3	0.1	-1.2	-0.1	-1.3	-0.1
Housing, water, electricity and other fuels	13.7	-1.1	-0.2	-0.1	0.0	0.5	0.1
Electricity	5.0	-1.4	-0.1	0.1	0.0	0.5	0.0
Furniture, household equipment, routine maintenance	4.6	0.0	0.0	0.0	0.0	-0.4	0.0
Health	5.0	0.4	0.0	-0.1	0.0	-0.1	0.0
Transport	12.8	-0.7	-0.1	-0.9	-0.1	-0.2	0.0
Oil products	5.9	-1.1	-0.1	-1.3	-0.1	-0.5	0.0
Communications	5.0	0.7	0.0	-0.1	0.0	0.6	0.0
Other items	15.1		0.3		0.2		0.1

Source: SORS and QM estimates

There was a slight increase in the price level of 0.2% during August, due to the increase in prices of goods and services in the groups: Recreation and culture (2.7%), Communication (0.6%), Apartment, water, electricity, gas and other fuels (0.5%) and Food and non-alcoholic beverages and Restaurants and hotels each by 0.2%. A fall in the prices in following groups had a disinflationary effect: Clothing and footwear (-1.3%), Furniture, household equipment and routine household maintenance (-0.4%), Transport (-0.3%) and Education (-0.2%). Since August 2016 achieved a significantly higher inflation rate of 0.9% due to a one-off increase in meat prices (which has not happened this year), year-on-year inflation was reduced to 2.5%.

Overall inflation recorded a drop in Q2, while the underlying inflation recorded a significant increase compared to Q1

Chart T5-5. Serbia: CPI and Underlying Inflation Trend, Annualized Rates, in %, 2011-2017



Source: SORS and QM estimates

Overall inflation (3m annual average) at the end of Q2 was 2.1%, which is a significant decrease when compared to late Q1 (Graph T5-5). In July, the decline in overall inflation continued, so that the quarterly annualized average ended in the negative zone (-2.7%), while August 3-month annual average indicated stagnation in the price level (inflation of 0%). A sharp decline in overall inflation in the last few months (from April to July by about 10 pp) is a result of a gradual exclusion of relatively high monthly inflation by April from the calculation of the average and the inclusion of low and negative inflation rates since May. On the contrary, underlying inflation (3m annualized average of inflation excluding food, alcohol, tobacco and energy) recorded a significant increase in Q2, from 0.7% in March to 3.1% in June. A high

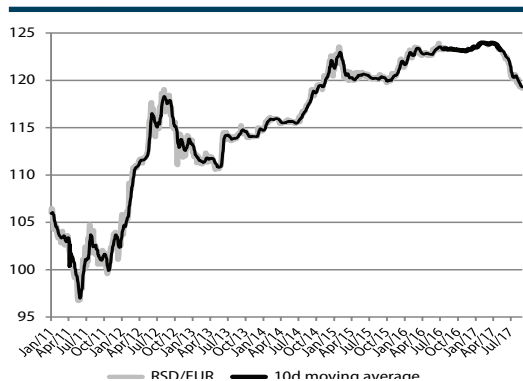
volatility of an annualized 3m average of overall inflation suggests that price movements in Serbia are strongly influenced by one-off and seasonal factors (for example, a sharp drop in overall inflation in Q2 in July was driven by a decline in fruit and vegetable prices). In such circumstances, an annual averaged over a longer period (such as a six-month) or year-on-year inflation which almost completely excludes abovementioned seasonal effects would be a better indicator of price movements.

The Exchange Rate

During Q2 and summer months the dinar has strengthened, so at the end of August the exchange rate almost reached the value of 119 dinars per euro

During Q2, dinar noticeably strengthened against the euro- by 2.5% when compared to March, i.e. by 0.8% when observed at a quarterly average (Graph T5-6). The trend of dinar appreciation continued during summer months, thus making dinar stronger by 0.4% in July (1.3% if the monthly average is observed) and by additional 1% in August (0.7% at the monthly average). Since the beginning of 2017, the dinar has strengthened against the euro by 3.5% in total, so the rate at the end of August amounted slightly over 119 dinars per euro, which is a highest dinar value since October 2014. Given that at the same time, the strengthening of the euro against the US dollar and Swiss franc was noted, dinar appreciation in Q2 was even more pronounced in comparison to these currencies. Dinar strengthened against the dollar in Q2 by 9% (by 3.8% at the quarterly average) and by additional 5% in July and August (6.9% at the monthly average). Similarly, during Q2, the dinar strengthened against the franc by 4.8% (2% at the monthly average) and by additional 5.6% in July and August (6.6% at the monthly average).

Chart T5-6. Serbia: Daily RSD/EUR Exchange Rate, 2011-2017



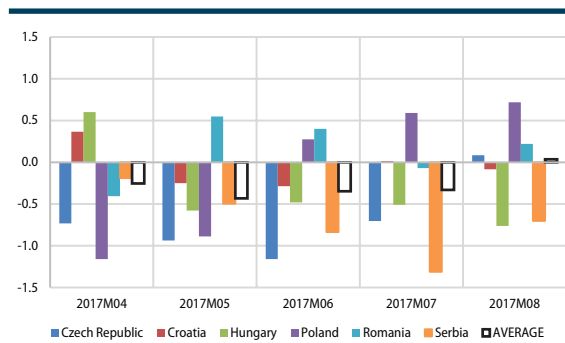
Source: NBS

the beginning of 2017, the dinar has strengthened against the euro by 3.5% in total, so the rate at the end of August amounted slightly over 119 dinars per euro, which is a highest dinar value since October 2014. Given that at the same time, the strengthening of the euro against the US dollar and Swiss franc was noted, dinar appreciation in Q2 was even more pronounced in comparison to these currencies. Dinar strengthened against the dollar in Q2 by 9% (by 3.8% at the quarterly average) and by additional 5% in July and August (6.9% at the monthly average). Similarly, during Q2, the dinar strengthened against the franc by 4.8% (2% at the monthly average) and by additional 5.6% in July and August (6.6% at the monthly average).

Dinar appreciation in Q2, especially in the period from June to August, significantly higher when compared to the foreign exchange rates of the countries in the region

Moderate dinar appreciation against the euro in April and May was in accordance with the movement of currencies in countries of the region with a similar exchange rate regime (Graph T5-7). However, the trend of dinar strengthening since June was significantly more pronounced when compared to the average of the selected currencies, despite the significantly large interventions of the National Bank of Serbia in the interbank foreign exchange market (IFEM). In order to prevent an excessive short-term appreciation of the dinar, the National Bank of Serbia bought a total of 505 million EUR at IMEF in Q2 (out of which, the amount of 345 million EUR only in June), and an additional 455 million EUR in July and August. Such strong appreciation pressures are common for this period of the year due to a seasonally high inflow of remittances and consequently increased purchase of foreign currencies from natural persons. In addition, the

Chart T5-7. Nominal Exchange Rate Change (in %) in Selected Countries



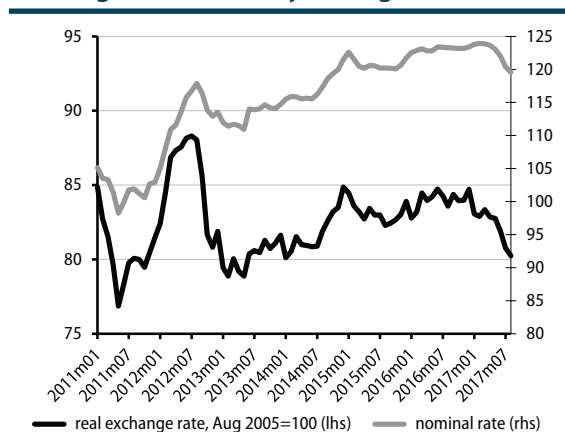
Source: Eurostat, NBS, QM estimates
Note: an increase represents depreciation

ECB's expansive monetary policy (and the growth in export demand) and the restrictive domestic fiscal policy (a surplus of over 70 billion dinars in the first seven months) contributed to the growth in the supply of the euro and the strengthening of the dinar, and there was also an increase in the investments of foreign investors in government securities, which, despite a falling trend of the risk premium for Serbia, continue to bring relatively high yields when compared to the countries in the region (4% annually on the July issue of ten-year government bonds denominated in euros).

Relatively strong real appreciation in Q2 and in July and August in contrast with the movement of macroeconomic fundamentals

In Q2, the dinar appreciated in real terms against the euro by 1.7%, in July by 1.4% and in August by an additional 0.6%. Given that the dinar in Q1 realistically appreciated against the euro by 1.6%, the total real appreciation in the first eight months of 2017 was 5.3%. Although the dinar nominally strengthened to a lesser extent in the observed period, a stronger real appreciation resulted from a significantly higher inflation in Serbia than in the eurozone countries. This trend of the dinar exchange rate in the present part of the year has had some positive effects (for example, the strengthening of the dinar against the euro and dollar significantly contributed to the reduction of Serbia's public debt), but negative part is that the modest rise in price competitiveness of the economy Serbia in 2016, which

Chart T5-8. Serbia: Nominal and Real RSD/EUR Exchange Rate, Monthly Averages, 2011-2017



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

was realized thanks to a real depreciation of the dinar of about 1%, was thus more than annulled. The trend of real appreciation of the dinar against the euro in 2017 is in contrast with the movement of macroeconomic fundamentals, bearing in mind the worsening of the current account deficit in this year and relative decline in productivity of the domestic economy when compared to productivity in EU countries – Serbia's most important trade partners. A strong dinar strengthening, accompanied by a decline in productivity, seriously worsens the competitiveness of the Serbian economy. Historically observed, the real exchange rate of the dinar in August was approximately at the same level as in January 2014 (Graph T5-8).