

Inflation in Serbia and in the European Union*

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ABSTRACT – Administration cannot be practiced in isolation of the culture of the society. This assertion implies that the knowledge, attitude, societal norms and orientation which people hold epitomize their administrative philosophy and the way it is practiced.

KEY WORDS: Serbia, EU, EMU, inflation, real exchange rate of the Serbian dinar

Introduction

In this paper we shall compare the rate of inflation in Serbia with the rate of inflation in the European Union (EU), to find out how much Serbia – as a potential candidate country to the EU – diverges from general price tendencies exhibited by EU member states. We shall also examine the real exchange rate of the Serbian dinar to the euro, the single currency within the European Economic and Monetary Union (EMU), bearing in mind the role it plays in Serbia's trade policy. Finally, we shall observe the structure of inflation by main items of household consumption in both Serbia and the EU – to contrast the standard of living in Serbia with the standard of living in the EU.

The rates of inflation will be derived from the index of consumer prices in Serbia and the harmonized index of consumer prices in the EU¹.

The index of consumer prices in Serbia is methodologically compatible with the harmonized index of consumer prices in the EU. The Statistical Office of the Republic of Serbia has been releasing data on this index since January 2007. This is the reason why our analysis will cover the period from January 2007 to April 2009, the latter being the last month for which we have collected final data on the harmonized index of consumer prices in the EU from the website of the Statistical Office of the European Communities (Eurostat)².

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¹ The rate of inflation – as the rate of growth of the general level of consumer prices in a country, or region – is obtained by subtracting one hundred from the index of consumer prices in Serbia, or the harmonized index of consumer prices in the EU. Consumer prices are retail prices of goods and services purchased by households.

² For the month for which the Eurostat has posted its most recent data on the harmonized index of consumer prices at its website, data for some countries may have been provisional or unavailable.



The EU will comprise the twenty-seven countries of which it has been actually constituted throughout the period under observation. These countries, listed in alphabetical order, are: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

The EMU is actually composed of thirteen countries from January to December 2007, fifteen countries from January to December 2008, and sixteen countries from January 2009. The EMU13 included: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Slovenia and Spain. The EU15 contained the EMU13 plus Cyprus and Malta. The EMU16 encloses the EMU15 and Slovakia. To accomplish analytical comparability, however, we shall deal with the EMU16 over the entire period from January 2007 to April 2009.

Inflation and the real exchange rate of the Serbian dinar

Chart 1 shows the annual rates of inflation in both Serbia and the EU³. Annual inflation was higher in Serbia than in the EU throughout the period under observation. As a rule, the discrepancy between annual inflation in Serbia and annual inflation in the EU was large. This suggests that a reference interest rate of the central bank should not be regarded as an almighty means of combating inflation in Serbia. It is the growth of factor productivity, along with a rational public spending, that strengthens the ability of a nation to stabilize prices and to increase its share in world trade. But, the fact is that Serbia is significantly lagging in this respect. Prominent institutions often exclude Serbia from their analyses of national competitiveness. In its most recent annual report on the competitiveness of nations, the Institute for Management Development, located in Lausanne (Switzerland), included only Slovenia and Croatia of the ex-Yugoslav republics. Among the fifty-seven countries observed by three hundred and twenty-nine criteria, Slovenia was ranked thirty-second, whereas Croatia was ranked fifty-third⁴.

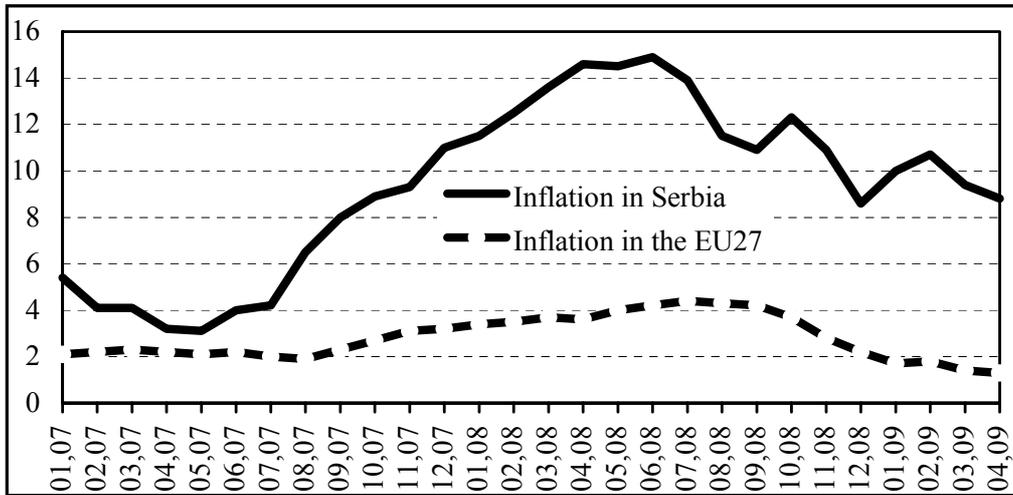
On the other hand, the course of annual inflation in Serbia was similar to the course of annual inflation in the EU. Yet, the acceleration of annual inflation started earlier and lasted longer in Serbia than in the EU: annual inflation was speeding up from May 2007 to June 2008 in Serbia, and from August 2007 to July 2008 in the EU.

³ The annual rate measures the growth of a given variable between the current month and the same month of the previous year. Thus, the annual rate of inflation – or, annual inflation – measures the growth of the general level of consumer prices over a twelve-month period.

⁴ Institute for Management Development (2009), *World Competitiveness Yearbook 2009*

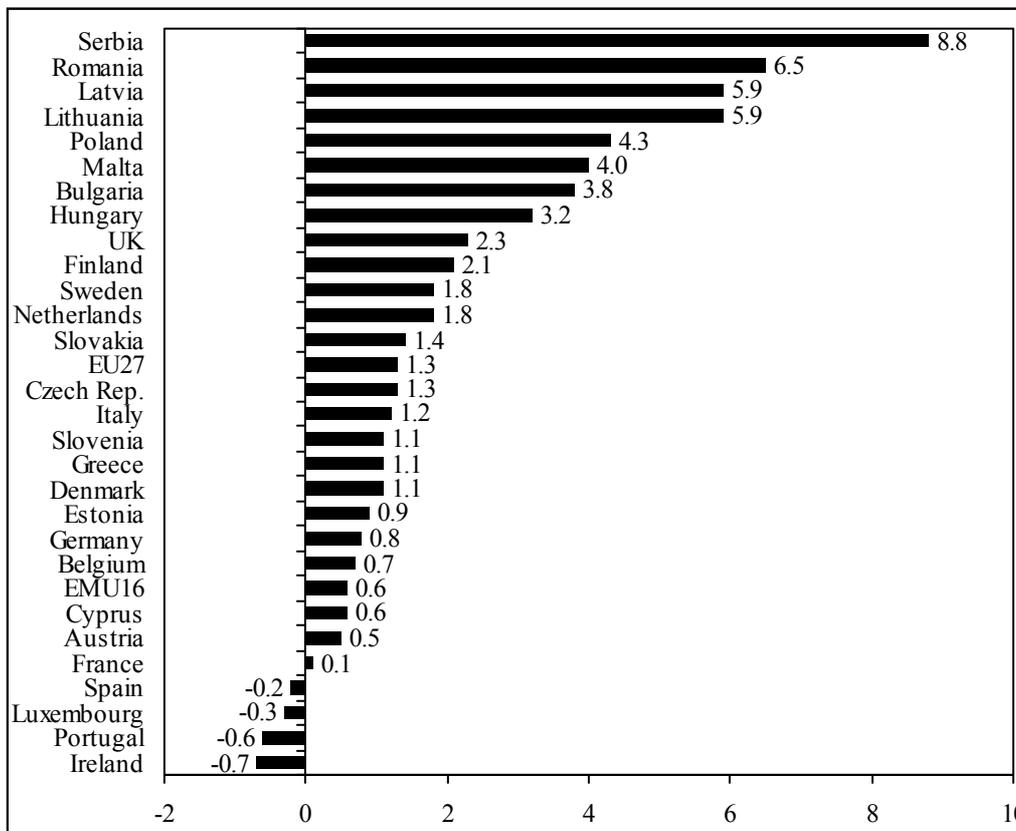


Chart 1. Inflation in Serbia and in the EU, January 2007 – April 2009: Annual rates (%)



Sources: Eurostat, Statistical Office of the Republic of Serbia

Chart 2. Inflation in Serbia and in the EU member states, April 2009: Annual rates (%)



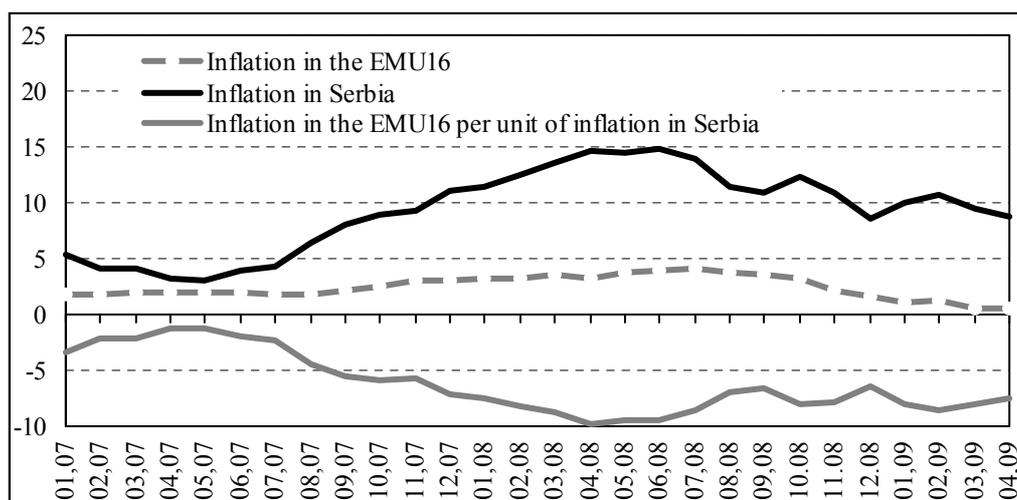
Sources: Eurostat, Statistical Office of the Republic of Serbia



Chart 2 depicts the annual rates of inflation in Serbia and in the EU member states for April 2009. In this month, annual inflation accounted for 1.3% in the EU, and only 0.6% in the EMU. Four countries of the euro zone recorded annual deflation, ranging from 0.2% (Spain) to 0.7% (Ireland). In contrast, Serbia registered an annual inflation rate of 8.8%, thus failing to keep up even with top-ranking Romania (6.5%). While the reference interest rates of central banks in the EU were particularly low in April 2009, as a response to the current economic crisis, the reference interest rate of the National Bank of Serbia was 16.5% per year at the beginning, and 14% per year at the end of that month⁵. But, in spite of such a high reference rate, Serbia's annual inflation rate remained high. This clearly shows that monetary policy alone cannot suppress inflation in a country with a low level of productivity and a high level of budget deficit.

Chart 3 displays inflation in the EMU per unit of inflation in Serbia and its determinants – inflation in the EMU, and inflation in Serbia – as annual rates. The course of annual inflation in the EMU per unit of annual inflation in Serbia was influenced, as it might have been expected, by the course of annual inflation in Serbia rather than by the course of annual inflation in the EMU. At the same time, the course of annual inflation in the EMU did not differ from the course of annual inflation in the EU: annual inflation in the EMU was stagnant from January to August 2007, increasing from August 2007 to July 2008, and decreasing from July 2008 to April 2009. In all the months, however, the EMU recorded a lower annual rate of inflation than the EU. The difference between annual inflation in the EU and that in the EMU was especially large in March and April 2009, when four countries of the euro zone had an annual deflation (Ireland, Portugal, Luxembourg and Spain), while three countries outside the euro zone had a high annual inflation (Romania, Latvia and Lithuania).

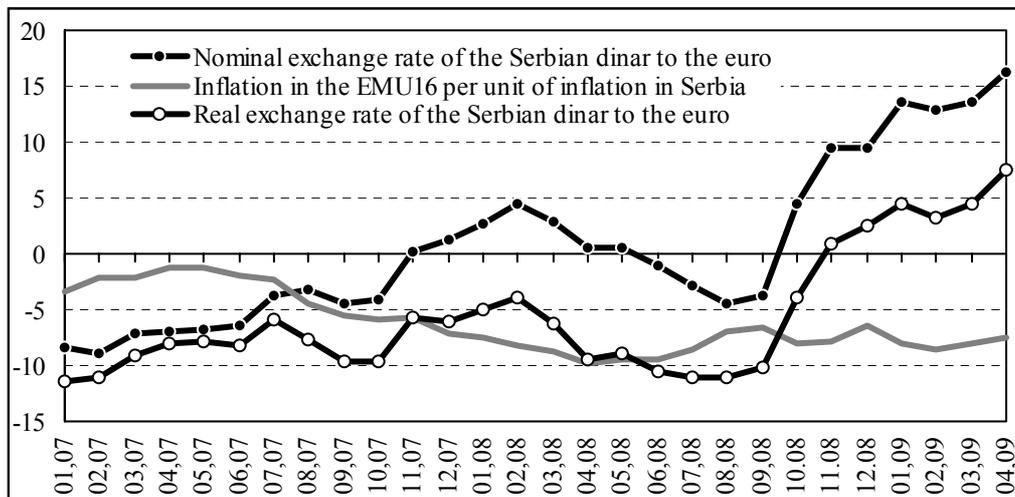
Chart 3. Inflation in the EMU per unit of inflation in Serbia and its determinants, January 2007 – April 2009: Annual rates (%)



Sources: Eurostat, Statistical Office of the Republic of Serbia

⁵ The reference interest rate of Serbia's central bank was lowered from 16.5% to 15% per year on the 6th of April 2009, and from 15% to 14% per year on the 22nd of April 2009.

Chart 4. Real exchange rate of the Serbian dinar to the euro and its determinants, January 2007 – April 2009: Annual rates (%)



Sources: Eurostat, Statistical Office of the Republic of Serbia, National Bank of Serbia

Chart 4 presents the real exchange rate of the Serbian dinar to the euro and its determinants – the nominal exchange rate of the Serbian dinar to the euro, and inflation in the EMU per unit of inflation in Serbia – in the form of annual rates⁶. The annual growth of the nominal exchange rate of the Serbian dinar to the euro exhibited a clear downward tendency only from February to August 2008. Only in this interval were fewer units of the Serbian currency being exchanged, from month to month, for one unit of the EMU currency than a year earlier. This means that the Serbian dinar was experiencing an accelerated annual appreciation to the euro in nominal terms only from February to August 2008.

On the other hand, the annual growth of the real exchange rate of the Serbian dinar to the euro was decelerating not only from February to August 2008, but also from July to October 2007. In these intervals fewer units of commodities produced in Serbia were being exchanged, from month to month, for one unit of commodities produced in the EMU than a year earlier. This means that the Serbian dinar was undergoing an accelerated annual appreciation to the euro in real terms not only from February to August 2008, but also from July to October 2007. In these intervals, therefore, the real exchange rate of the Serbian dinar, as a relative price of home-produced and foreign-produced goods and services, was demonstrating annual changes that were not in favour of the Serbian net exports to the EMU.

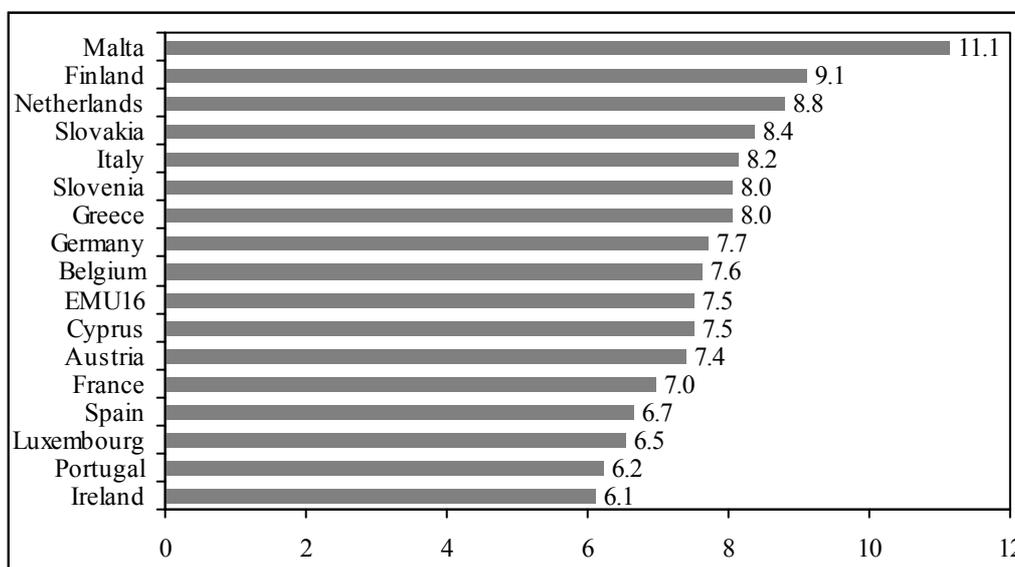
⁶ The index of the real exchange rate of the Serbian dinar to the euro, *RER*, is computed as:

$$RER = NER \times P^*/P$$

where *NER* is the index of the nominal exchange rate of the Serbian dinar to the euro, *P** the harmonized index of consumer prices in the EMU, and *P* the index of consumer prices in Serbia. (Let us recall that the rate of growth is obtained by subtracting one hundred from a given index.) The nominal exchange rate of the Serbian dinar to the euro refers to the monthly average of daily mid-point exchange rates released by the National Bank of Serbia. It is directly quoted, for instance: 1 euro = 93.0588 Serbian dinars.



Chart 5. Real bilateral exchange rates of the Serbian dinar to the euro,
April 2009: Annual rates (%)



Sources: Eurostat, Statistical Office of the Republic of Serbia, National Bank of Serbia

Chart 5 shows real bilateral exchange rates of the Serbian dinar to the euro as annual rates for April 2009. In this month, Serbia registered annual changes of its currency in real terms that favoured its net exports to each country of the euro zone, ranging from 6.1% (in bilateral trade with Ireland) to 11.1% (in bilateral trade with Malta). On average, the Serbian dinar depreciated to the euro in real terms by 7.5% in April 2009 over April 2008.

The structure of inflation

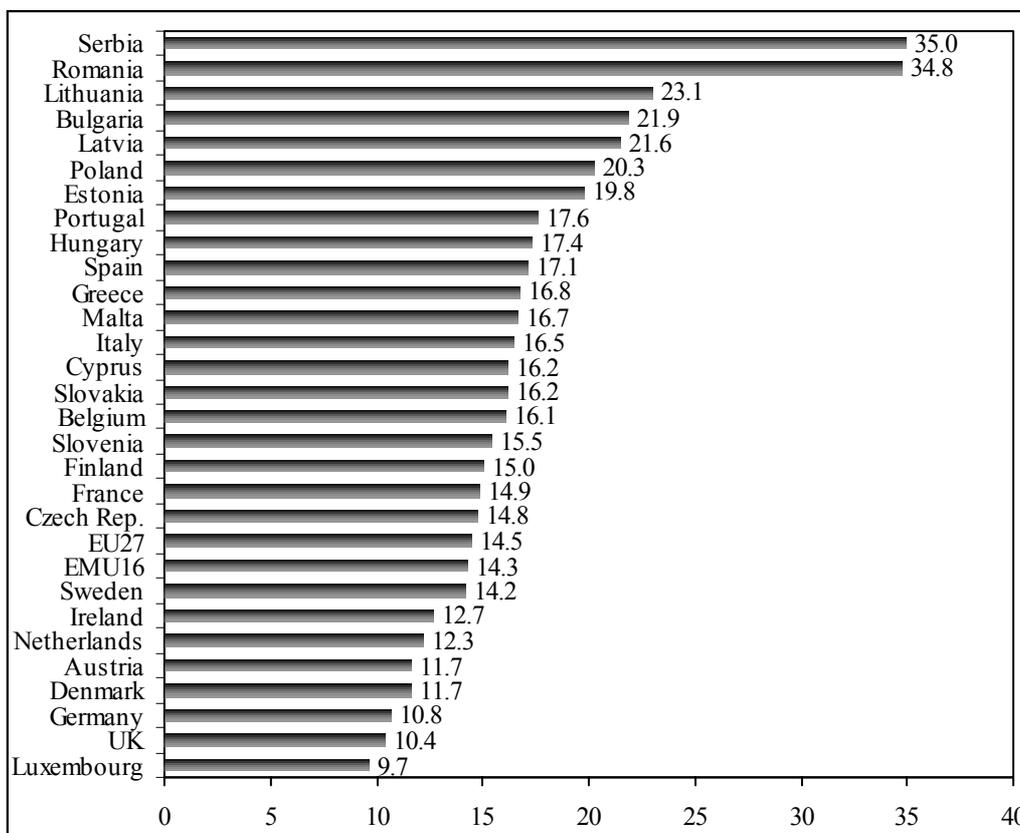
In April 2009, as in many other months of the period under observation, two categories – among the twelve main categories of goods and services of household consumption⁷ – stood out by their contributions to the overall annual growth of consumer prices, in Serbia as in the EU. These categories were food and non-alcoholic beverages, on the one hand, and goods and services required for housing (actual rentals; the maintenance and repair of the dwelling; water supply and other services relating to the dwelling; electricity, gas and other fuels), on the other. The first category was more important than the second one in Serbia, whereas the second category was more important than the first one in the EU.

⁷ The classification of goods and services of household consumption, being used for the computation of consumer price indices, has the following main categories: 1) food and non-alcoholic beverages; 2) alcoholic beverages and tobacco; 3) clothing and footwear; 4) goods and services required for housing; 5) furnishings, household equipment and the routine maintenance of the house; 6) medical products, out-patient and hospital services; 7) transportation equipment and services; 8) postal services, telephone equipment and services; 9) goods and services required for recreation and culture; 10) education services; 11) catering and accommodation services; 12) miscellaneous goods and services.



In April 2009, the annual growth of consumer prices of food and non-alcoholic beverages was predominantly due to the annual growth of consumer prices of food in both Serbia and the EU. The annual growth of consumer prices of food – which accounted for 6.4% in Serbia, and 2.2% in the EU – was lower than the overall annual growth of consumer prices in Serbia (by nearly 30%), and higher than that in the EU (by nearly 70%)⁸. Yet, the proportion in which it contributed to the overall annual growth of consumer prices was almost the same in Serbia and in the EU (25%). Such a result stemmed from a remarkably high share of food in the consumption of households in Serbia (35%), in comparison with that in the EU (14.5%).

Chart 6. *Indices of consumer prices of food in Serbia and in the EU member states, 2009: Weights (%)*



Sources: Eurostat, Statistical Office of the Republic of Serbia

Chart 6 depicts the weights for the indices of consumer prices of food in Serbia and in the EU member states for the year 2009. The chart reminds us of Engel's law: as income rises, the proportion of income spent on food falls (and the other way round). The share of food in total household expenditure is much the same in Serbia (35%) as in top-ranking Romania (34.8%). At the opposite end stands Luxembourg, with only 9.7% of household income being spent on food. We may conclude that the living standard in Serbia is low.

⁸ Let us recall that the overall annual rate of growth of consumer prices accounted for 8.8% in Serbia, and 1.3% in the EU in April 2009.



Conclusion

The annual rate of inflation was persistently higher in Serbia than in the EU from January 2007 to April 2009. This suggests that a reference interest rate of the central bank should not be regarded as an almighty means of combating inflation in Serbia. It is the growth of factor productivity, along with a rational public spending, that strengthens the ability of a nation to stabilize prices and to increase its share in world trade. But, the fact is that Serbia is significantly lagging in this respect.

The annual growth of the real exchange rate of the Serbian dinar to the euro was decelerating from July to October 2007, and from February to August 2008. In these intervals fewer units of commodities produced in Serbia were being exchanged, from month to month, for one unit of commodities produced in the EMU than a year earlier. This means that the Serbian dinar was experiencing an accelerated annual appreciation to the euro in real terms from July to October 2007, and from February to August 2008. In these intervals, therefore, the real exchange rate of the Serbian dinar, as a relative price of home-produced and foreign-produced goods and services, was undergoing annual changes that were not in favour of the Serbian net exports to the EMU.

In April 2009, annual inflation accounted for 1.3% in the EU, and 8.8% in Serbia. In that month, as in many other months of the period under observation, two categories of goods and services of household consumption stood out by their contributions to the overall annual growth of consumer prices, in Serbia as in the EU. These categories were food and non-alcoholic beverages, on the one hand, and goods and services required for housing, on the other. The first category was more important than the second one in Serbia, while the second category was more important than the first one in the EU.

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