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## **PREPARING FOR THE WORST: RISING FOOD PRICES IN SERBIA**

**Abstract:** The COVID-19 pandemic, adverse climate factors, disruptions in global supply chains, global conflicts, and disruptions in the monetary policy of leading banks are contributing to the rapid rise in global food prices. Serbia has not remained immune to global circumstances. There has been a significant increase in consumer and producer prices in the last two years. Although the Serbian government has introduced a price ceiling on basic foodstuffs, including milk, flour, pork, sugar, and sunflower oil, poor households are already affected by the inflation rate. The highest annual inflation rate in more than eight years, 6.6 percent in October 2021 and 8.2 percent in January 2022, has significantly reduced disposable income. This paper provides examples of appropriate measures that need to be taken to mitigate any such unintended consequences. From a policy perspective, there is an apparent need for (a) continued supply chain monitoring, (b) information provision, (c) agriculture and food support measures, and (d) filling commodity reserves.

**Keywords:** COVID-19, food prices, Serbia, appropriate measures

### **1. INTRODUCTION**

The current pandemic has far-reaching and long-term consequences not only for health systems, but also for societies, national economies, and global relations that will last for years. The COVID-19 pandemic generates simultaneous disruptions to both the supply and demand sides. The supply side was initially disrupted by lockdowns, business closures, and social distancing, while the demand side reacted by reducing investments and household consumption.

Different macroeconomic effects of the pandemic have been the subject of much research across the globe. A study by Pagano et al. (2020) pointed out a reallocation of capital and labor as an important effect of the pandemic. Capelle-Blancard & Desroziers (2020) suggested a hard link between health and macroeconomic policies and the reaction of stock markets during the crisis. Using a threshold-augmented multi-country econometric model, Chudik et al. (2020) highlighted the importance of coordinated multi-country policy response to the pandemic. Buklemishev et al. (2021) emphasized the inefficiency of monetary policy in solving current problems, i.e., the need to introduce fiscal stimulus to restore economic activity. In general, regardless of the large differences in economic losses across economies (Rungcharoenkitkul, 2021), the COVID-19 pandemic increased poverty and inequalities on a global scale (UNDP, 2020).

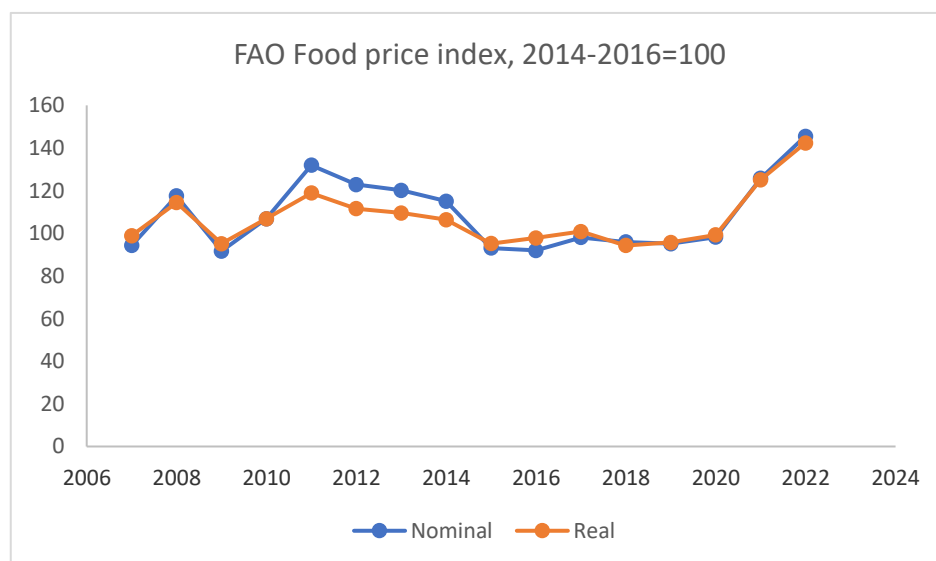
According to the Sustainable Development Goals Report 2021, COVID-19 caused, for the first time in over 20 years, a rise in the global extreme poverty rate, erased two decades of educational achievements, and increased domestic violence. Also, it increased concentrations of major greenhouse gases and debt distress, especially in developing countries (UN, 2021). Of the 7.76 billion people in the world in 2020, 2.37 billion, or one third, are without food or unable to eat a healthy, balanced diet on a regular basis. The number of people living on less than \$1.90 per day increased between 119 million and 124 million in 2020. In other words, extreme poverty has affected more than 810 million people. The COVID-19 outbreak has also led to changes in global food prices – the price of staple foods rose significantly, to a level near the heights of 2007-08 (IFPRI, 2022).

It is well known that high and volatile food prices can hurt food security and initially increase poverty. The uncertain global economy as well as geopolitical tensions could push many people into poverty. Considering this, the main objective of the paper is to assess the effects of the crisis on food prices in Serbia.

## 2. GLOBAL FOOD PRICES IN THE PANDEMIC

The coronavirus disease 2019 outbreak created economic disruptions – it reduced global economic growth by a rate of 3.2% and global trade by 5.3% in 2020 (CRS, 2021). For example, in the first quarter of 2020, France’s GDP growth rate dropped by 5.7%, Germany’s GDP by 1.8%, Italy’s by 5.6%, Spain’s by 5.4%, and China’s by even 8.7%. China’s decline in GDP became quickly apparent in the international market and was reflected in delays in goods deliveries. However, the economic downturn has declined below expected levels thanks to the adopted fiscal and monetary measures.

The economic difficulties have particularly affected food prices. A worrying rise in food prices has been noted – both international prices, nominal and real, as well as five commodity group price indices, increased above the level of the 2007/08 crisis (Figure 1, Table 1). Nominal food prices increased by 23.8% in 2022 compared with 2008 levels, while real food prices increased by 24.4%.



**Figure 1.** Nominal and real food prices, 2006-2022

Source: FAOSTAT

**Table 1.** Food price index

	Total	Meat	Dairy	Cereals	Vegetable Oils	Sugar
2004	65.6	67.6	69.8	64.0	69.6	44.3
2007	94.3	76.9	122.4	100.9	107.3	62.4
2008	117.5	90.2	132.3	137.6	141.1	79.2
2012	122.8	105.0	111.7	137.4	138.3	133.3
2015	93.0	96.7	87.1	95.9	89.9	83.2
2019	95.1	100.0	102.8	96.6	83.2	78.6
2020	98.1	95.5	101.8	103.1	99.4	79.5
2021	125.7	107.7	119.1	131.2	164.9	109.3
2022						
January	135.4	112.1	132.6	140.6	185.9	112.7
February	141.4	114.4	141.5	145.3	201.7	110.5
March	159.3	120.0	145.2	170.1	248.6	117.9

Source: FAOSTAT

In March 2022, the FAO meat price index averaged 120.0 points, up 33% from 2008; the dairy price index averaged 145.2 points, up 21.9% above its value a year ago; the cereal price index averaged 170.1 points, reaching the highest level on record since 1990; the vegetable oil price index averaged 248.6 points, or more than double compared to 2007, while the sugar price index increased by 7.9% compared to the previous year (FAO, 2022).

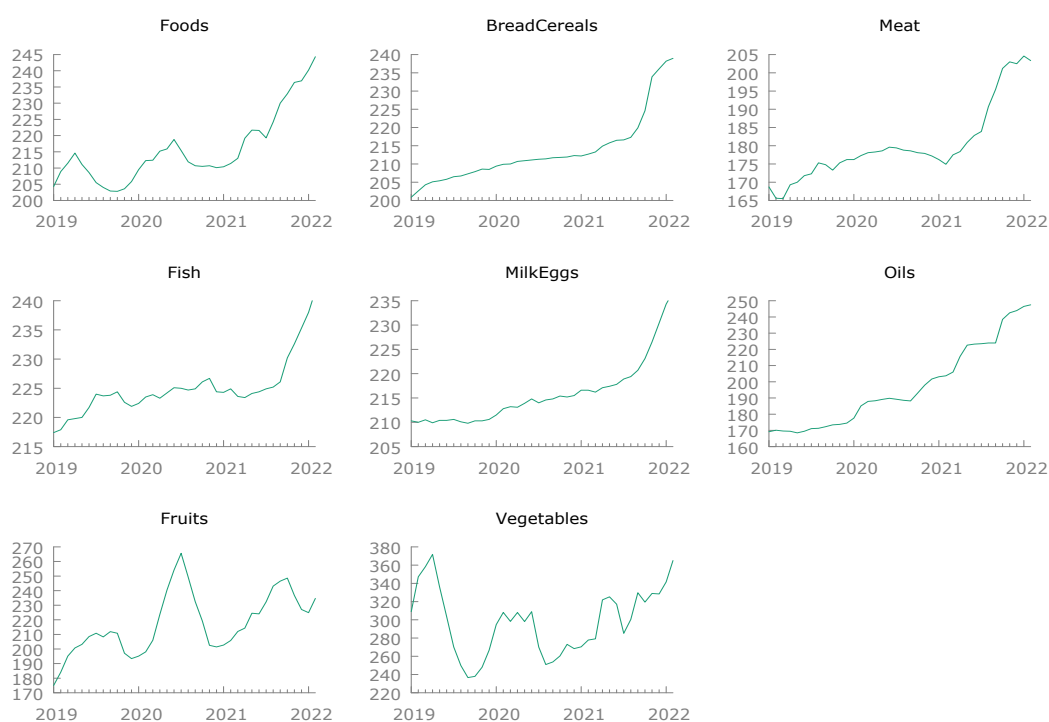
## 3. COVID-19 IN SERBIA

Similar to other economies, Serbia has experienced several waves of COVID-19 infections. As of April 11, 2022, the economy counts an accumulated 1.989.415 cases and 15.884 registered deaths (Ministarstvo zdravlja RS, 2022). The government has taken a series of measures in order to mitigate the impact of a pandemic. Among other things, the government supported businesses with loan guarantee schemes, deferral of taxes, payment of a net minimum wage, etc. The total value of the fiscal package intended for private enterprises and each citizen older than age 18 (universal cash transfer of EUR 100), including both direct fiscal support (EUR 4.0 billion) and credit guarantees and grants (EUR 2 billion), amounted to 12.7% of GDP (EUR 6 billion) (OECD, 2022). As a result, the large fiscal stimulus has helped the country overcome the challenges of isolation more easily. According to the Statistical Office of the Republic of Serbia (SORS), GDP fell by 1% in real terms in 2020, but recovered in 2021, when real GDP growth stood at 7.4% (NBS, 2022).

Despite the relative stability of the financial sector, a significant part of the Serbian population was threatened by a pandemic due to the sensitivity of the labor market and institutional weaknesses, especially in the area of social protection. The pandemic crisis is expected to worsen people’s material well-being. Before the crisis, the poverty headcount ratio in Serbia was almost seven times higher than in OECD countries. In 2019, the 2011 PPP in Serbia was 19.3% and the OECD economies were 2.9% (OECD, 2022). The crisis triggered by the pandemic has created a need for humanitarian aid assistance, so the Serbian Red Cross distributed food to people who had never before needed this kind of help – about 26,000 food parcels per day. Due to the inability to sell agricultural products, the crisis has particularly affected the elderly in rural areas (ATINA, 2020).

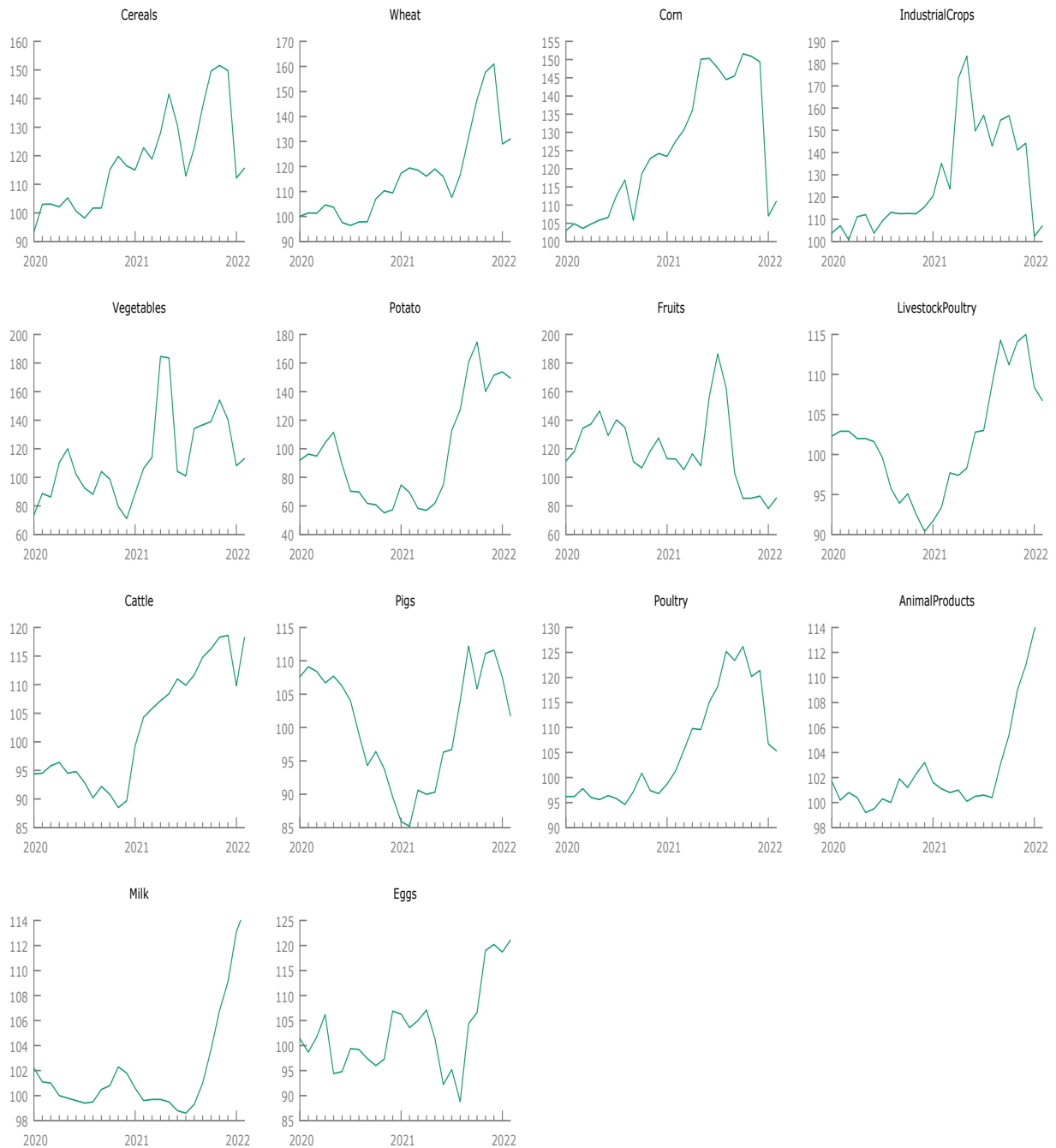
### 3.1. Food prices in Serbia

The consumer price index (2006=100) in Serbia significantly increased during the COVID-19 outbreak (Figure 2). The food index increased by 19.6% in the period January 2019-March 2022. In the same period, all food groups – bread and cereals, meat, fish, milk, milk products and eggs, oils, fruits, and vegetables – prices also increased by 18.96%, 20.5%, 11.2%, 12.6%, 46.3%, 34.3%, and 18.4%, respectively.



**Figure 2:** Consumer prices, (monthly, basic indices 2006=100), 2019-2022  
**Source:** SORS, 2022

In the two-year period, producer prices of the majority of agricultural products have increased significantly (Figure 3). In February 2022, compared to January 2020, the rise in prices was noted in the following groups and products: cereals (24.1%), wheat (31.0%), corn (8.0%), industrial crops (3.4%), vegetables (54.1%), potatoes (62.1%), livestock and poultry (4.3%), cattle (25.6%), poultry (9.5%), animal products (13.7%), milk (12.4%), and eggs (19.5%). The decline in producer prices was recorded only in the fruits (23.0%) and pigs (5.7%) groups.



**Figure 3: Producer prices, (monthly, average previous year=100), 2020-2022**  
**Source: SORS, 2022**

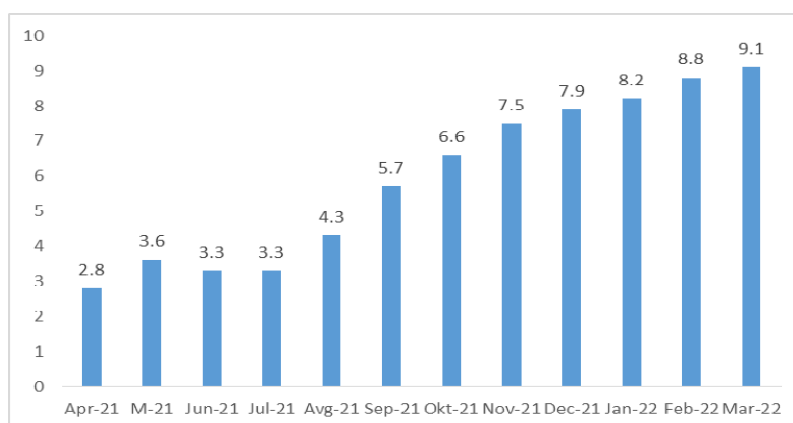
High food prices are mostly driven by higher input prices. Observing the average of the previous year, price indices for reproduction materials, production means, and services in agriculture in the fourth quarter of 2021 increased by 27.5% compared to the first quarter of 2020 (Figure 4). Among other, the rise in prices was observed in the following groups: mineral fertilizers (145.7%), energy (20%), animal feedingstuffs (23.0%), and plant protection products (12.3%).



**Figure 4:** Price indices for reproduction material, production means and services in agriculture (average previous year=100), 2020-2022  
**Source:** SORS, 2022

### 3.2. Inflation in Serbia

The annual inflation rate in Serbia climbed to 9.1 percent in March of 2022, from 8.2 percent in January (Figure 5). It was the highest reading since June of 2013, and quadrupled the magnification relative to April 2021.



**Figure 5:** Inflation rate in Serbia  
**Source:** SORS, 2022

In the context of rising inflation, with the aim of preventing market disturbances and avoiding other negative consequences, the Serbian government has introduced a price ceiling effective initially for 60 days and extended to 90 days on basic foodstuffs, including milk, flour, pork, sugar, and sunflower oil. Despite these measures, poor households are already affected by the inflation rate. The largest price hikes last year were in food and fuel, which are products on which the poorest consumers spend the largest portions of their income. Thus, accelerated inflation has an explicit social dimension in Serbia (Euroactiv, 2022).

## 4. DISCUSSION AND CONCLUSIONS

Inflation in Serbia is expected to increase in the coming months due to further growth in energy and food prices on world commodity exchanges. Considering that the movement in world prices of energy and primary agricultural commodities, the pace of global economic recovery, the duration of disruptions in global supply chains, and the normalisation of monetary policies of leading central banks is impossible to predict, the government should introduce measures to mitigate inflation and protect the welfare of the population.

There is an apparent need for (a) continued supply chain monitoring, (b) information provision, (c) agriculture and food support measures, and (d) filling commodity reserves. In order to minimize supply chain disruption, appropriate management strategies have to be adopted. A contingency supply plan that will include the identification and diversification of suppliers of essential goods should be developed. Among other things, the transparency of the supply chain should be improved. Given that the agriculture industry in Serbia accounts for more than 10 percent of the GDP,

but the agrarian budget accounts for just 5 percent of the state budget, the expansion and improvement of agriculture and food support measures should be undertaken.

Climate change, COVID-19 pandemic lockdowns, global shipping challenges, and wars have further reinforced the importance of commodity reserves. To minimize the country's exposure to shocks, the country must continue to accumulate food reserves. Even more, Serbia needs to invest in upgrading existing ones and building new ones for storage and warehousing both underground and surface as well as improving small-scale and large-scale grain storage structures.

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