

## THE PRODUCTION AND CONSUMPTION OF FOOD DURING THE COVID-19 PANDEMIC

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### **Abstract**

*The COVID-19 has created major difficulties on the economy of many sectors of the industry, on the health and agriculture. The insecurity created once the pandemic came has led to changes on the behavior of consumption and on the preferences of the consumers. The agri-food sector was one of the most affected due to the appearance of the restrictions, affecting the commerce with food products by limiting the circulations of the persons and the decrease of the imports but also by increasing the prices to the main consumption products. Beside all these, the producers and the consumers have adapted very quickly to the restriction imposed, thus increasing the online commerce, obliging the producers to increase in an alert rhythm the production capacity. Also in this period the consumers were more careful to the nutritional value of the purchased products, the quantity ordered once the uncertainty of the place of work appeared.*

**Key words:** food, food sector, pandemic Covid-19, SARS-COV-2

### **INTRODUCTION**

The Romanian agricultural sector has the greatest percentage of the total number of place of work in the countries of the European Economic Community. Beside all these, this quota has decreased constantly but the value of the agricultural production has known a considerable growth in all the sectors in the last 10 years. The structure of the Romanian agriculture is the following: around 66% of vegetal production, approximately 25% is represented by the animal production, the processing represents approximately 8% and the last 1% represents the production of agricultural services [6].

The Covid-19 pandemic has generated difficulties without precedent for the global economic system, for the assuring of its operational fluency and financial sustainability, for the assuring of the labor from the sectors where the activity was unable to be interrupted and also for the activities from agriculture.

As an effect of the beginning of pandemic, in a short period of time, have appeared the threats of depreciation of the national currency in relation to the Euro, the increase of the number of unemployed persons, the abrupt decrease of the income, the impossibility to pay the rates or the due invoices, then the uncertainty of the access to the basic food products

because many have disappeared from the market for weeks (flour, pasta, rice, canned food) and moreover, the buying capacity has entered in a breakdown for numerous goods of long use. For the Romanian people the effects of the new crisis was felt initially by the general anxiety towards the unpredictable, by the perspective of the appearance of new risks and problems – the loss of the income of the population, the closing of the great companies or the small business, it appeared the problem of taking care of the children that couldn't go to kindergarten or to school anymore, it had to be solved somehow the problem of the numerous families, to isolated the vulnerable ones or even the people already infected etc. The isolation in an undefined period of time in the houses seemed somehow preferable to going to the place of work intensively exposed to the risk of contamination [5]

Also, in some villages, the pandemic caused a wave of governmental policies that accentuated the premises of the food crisis.

The uncertainties regarding the availability of the employees from the agriculture and the uncertainty related to the agriculture harvest from an year with extreme drought, cause the wave of restrictions on the export of food, which facilitated a first phenomenon of shortage on the global food market.

A common communication of FAO, WHO, WTO remarked also the slowdown of the circulation of the employees from the agriculture industry and the food industry that blocked numerous agricultural sectors in the West but not only, and the delays at the borders of the transports of goods has affected the rhythm of the supply of the internal markets [3].

Some countries have suspended the exports of cereals in order to prevent the absence of the goods and the livelihood in the internal market or the fast increase of the prices, which created pretty large psychological pressures on the market of the dependent importing countries.[2]

On the global level was structured an initiative with the center of attention of the possibility to avoid a major food crisis, caused by the measures of forbidding the exports by some exporting countries – against the preoccupation for the local food security.

The pandemic has already underlined the fragility of the international chains of supply for the essential products as the food products and for other products and many governments have reevaluated the security of the internal food stocks.

In March, more than 10 countries have already imposed restrictions on the export for the products as buckwheat, onion, garlic, vegetable, eggs or beans. Romania has launched the idea to forbid the export of cereals but the government did not put into practice this measure.

In this context, a group of 50 countries members of the WTO have proposed the signing of a commitment to assure the correct functioning of

the global supply chains and to avoid some measures of restricting the trade [5]

## MATERIAL AND METHOD

The basis of this paper is the quantitative analysis of the data on the level of the food sector and the qualitative analysis of the perspective collected from the literature. At the end of the study regarding the statistical data and of the present situation from the country, was analyzed how the COVID-19 pandemic impact had specific consequences on short and long term on some sectors of the agri-food industry.

## RESULTS AND DISCUSSIONS

The shock of the fast spread on the global level of the infection with COVID-19, beside the direct threat on the life and health of the population, has changed fast and radically the behavior of purchase of the population, including in Romanian, concerning first of all the food sector but also the pharmaceutical one. The population began to create small stocks of products necessary for the surviving during the isolation in their own houses. In the first two-three weeks of panic, a series of basic products have disappeared from the stores: flour and pasta, rice, corn meal, canned food and meat refrigerated products, fish, vegetables etc. [5]

The change of the method of supply of the population by purchasing products on the internet became larger and larger. The absence of numerous products from the physical stores has determined the orientation of a part of the population to online purchase, in case of some products and food products (28%), products of personal hygiene and home products (15%), cosmetics (14,6%) or coffee or tea (14%) (Iacob, 2020). Among the goods that before the pandemic were purchased directly from stores and during the pandemic were purchased online are food products (48%), cloths, footwear and accessories (36%), coffee and tea (35%) and cosmetics (34%)[1]

During the state of emergency, the food trade was one of the economic sectors, which continued to function, because the supermarkets, hypermarkets and all the other similar units responded to the basic or essential needs of the consumers [1]

The WHO remarked the importance of a healthy diet that had to include 70-80% food of vegetal origin and only 60 grams of meat per day, because it had saturated fat; fish that had good fats, can be consumed in larger quantities.

In the daily basket can be included also: whole meal, branry bread, cabbage, pork liver, mackerel, cheese, onion, carrots, potatoes, beet and whole meal; the daily basket can be diversified with apples, rice, leek, other

animal organs and a great variety of fish. The minimum basket of food consumption calculated in the Instituted of Research of Life Quality has as basis the norms of consumption established by the nutritionist specialists from the Institute of Hygiene and Public Health.

These norms of consumption for an adult person and professionally active, who works in average conditions of physical and intellectual effort are of 2700 calories per day. The necessary products for the daily consumption are: meat and derivate of meat, milk and derivate of milk, oil, vegetables, potato, bean, apples, sugar and sweets in reduced quantity and coffee mentioned in the preferences of consumption for adults in our country.

In the middle of the pandemic of coronavirus, many of the food products have increased the prices. A monitoring accomplished by the Council of Competition in the period December 2019 – December 2020 shows that for many products the prices have increased with over 2 lei/kg, although in some cases there is no economical motivation.

The salami, the fresh tomatoes, milk and apples were the products that have increased most of all in March, compared to December 2019. There are still products whose prices have decreased as is the case of corn meal, onion, eggs or beans.

Thus, in case of the white bread of 300 grams, the price went on 23<sup>rd</sup> of March to 1,92 lei, while in December it was 1,4 lei, in January it was 1,8 lei and in February it was 1,6 lei. Also in regard to the intermediary sort of bread, of 300 grams, the price has increased from 1,44 lei in December to 1,93 lei in March according to the monitoring of the Competition Council. The price of white potatoes was on 23<sup>rd</sup> of March of 2,80 lei/kg, compared to 2,65 lei/kg in December 2019 and 2,73 lei, 2,71 lei/kg in January and February 2020, respectively. In the present, on the market the price of white and red potatoes has crossed more over the one indicated by the Competition Council, being on the cheapest markets between 4 and 4,5 lei/kg.

An increase of the price was seen also in the cow milk of 1,5% UHT. On 23<sup>rd</sup> of March the price for a liter was of 4,95 lei, while in December the price was 3,94 lei, in January was 4,10 lei and in February 4,46 lei.

The increase of the prices for the agri-food products was determined by the imports. The Romanian producers have green salad, green onion and radishes but nobody buys them, they are thrown away.

The supermarkets have reduced the demand from the Romanian producers and they prefer to bring from import. The price of a kilogram of yellow onion was on 23<sup>rd</sup> of March 3,06 lei/kg, compared to 3,23 lei/kg in December, of 3,09 lei in January and 2,96 lei/kg in February.

Until the end of March this product has also suffered a high increase, the price reaching to approximately 6 lei/kg. Also the fresh tomatoes have registered an increase in this period, reaching to an average price of 9,29 lei/kg on 23<sup>rd</sup> of March, with 2,23 lei more than in December 2019 and 1,56 lei more compared to February. Both products are brought now in this period from import.

The beans got cheaper, the price reaching to 10,67 lei/kg on 23<sup>rd</sup> of March, from 10,9 lei in December, 13,17 lei/kg in February and 11,55 lei/kg in January 2020. The price of Golden apples has increased from 3,77 lei/kg in December 2019, to 4,77 lei/kg in March 2020.

Another product whose price was monitored by the Competition Council was the salami, which also had an increase in prices. It reached to an average price of 28,83 lei/kg in March 2020, after in December 2019 was sold with 26,53 lei/kg, with 26,69 lei/kg in January and with 26,77 lei/kg in February.

In regard to the Victoria salami, the price had reached to 29,08 lei/kg, after in December it was sold with 27,07 lei/kg, in January with 28,56 lei/kg, and in February with 27,28 lei/kg. In this case, the explanation is that greatest part of the processed pork meat is brought from import and on the external plan the prices are increasing.

In case of the pork meat, only the only the sliced steak has registered an increase with 86 bani, from 20,25 lei/kg, in December, to 21,11 lei/kg on 23<sup>rd</sup> of March.

As for the rest the other sorts have registered a mild increase, but here we have to consider that in December we have the greatest consumption of the year. Also for the chicken only in the upper pulps was seen an increase, from 12,40 lei/kg in December, to 12,58 lei/kg on 23<sup>rd</sup> of March, while other sorts have registered decreases of price of up to 1 leu. The threat of the phenomena of drought has accentuated the effects felt.

The drought and the excessive temperatures can affect severely not only the agricultural harvest but also the health of the population, the energetic sectors of the economy and the natural environment in general. Or, for the most European countries, the winter months 2019-2020 but also the months of March and April were not only months of pandemic but also unusually warm and dry months.

The drought is a recurrent characteristic also of the European climate, it threatens the food security, increases the risk of disease and death that leads to the mass migration.

Numerous experts sustain that the record temperatures and the drought could increase the problems created by the SARS-COV-2 virus, moreover that there are signals of some genetic mutations of it (Thailand Medical News, 1 May, 2020). Even beside this (there are experts that affirm

that the warm weather will diminish or even eliminate the impact of the infection with SARS-COV-2), but still, on the global level, the periods of drought, as the uncontrolled forest fire on extended areas, increase the risks and manifestations already existent of the global food crisis [5]

## CONCLUSIONS

The COVID-19 pandemic has disrupted significantly all the sectors from the agri-food industry from Central and Eastern Europe.

These disruptions, although they caused a great negative impact, they accelerated also the tendencies to which the industry should adapt no matter what.

In Romania, during the COVID-19 pandemic, the stocks of food were monitored daily. It was analyzes also the problems that the farmers and those from the food industry had, for the purpose of the fluidity of the activities of support for the supplying of the merchandise market. In many cases the government that considered the problem of freezing the prices to the basic food products and for some pharmaceutical products, but finally it led to the conclusion that if the prices for food were frozen, the first affected persons would be the small producers and processors.

The consumption of food in the beginning of the pandemic has registered a significant increase because of the fears of the population regarding the ending of the resources of food and not only, then, following a gradual decrease because of the stocks already made but also because of the increase of prices especially for the food. In 2020, in January the increase of the consumption prices was of +0,5%, similar to the value from 12 months ago (+0,49%).

In March, the annual inflation remained on the level of 3,05% as in February. The determinant factor was the increase of food prices (+1,46% in one month), compensated only partially by the decreasing of fuel prices.

The greatest increase of prices in March was on the sector of products with volatile prices, vegetables and fruits. The prices for potatoes and fresh fruits have increased the greatest ±20%. The prices for some basic products, as bread, meat and milk have increased significantly.

The most important of these tendencies that appeared during the Covid -19 pandemic are the digitalization and the exchanging of the consumers' preferences.

Beside all these, different actors from the agri-food value chain have to be prepared for greater structural changes that will have impact on the sector, among which the climatic changes and stricter environment regulations.

To some extent, the pandemic is a preamble of these changes.

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