Viorica GAVRILĂ

Institute of Agricultural Economics, Romanian Academy, Bucharest
vio.gavrila@yahoo.com

FRUIT SECTOR IN DECLINE

ABSTRACT

The imperfections of the agri-food markets have multiple origins, including biological and climatic hazards, uncertainty, adjustment times. The debate on food self-sufficiency is often presented as one in which economic reasoning and political imperatives collide. The impact of food crises leads to the conclusion that ensuring food self-sufficiency remains an important objective of each country's policy. The data analysis covers the period 2010–2019, considering the evolution of the European fruit market and consumption behaviour. The paper analyses the resources available in the fruit sector, identifies the vulnerabilities and risks of fresh and processed fruit production, and proposes solutions to increase the level of ensuring population's food consumption from domestic production.

Key words: fruits, self-sufficiency.

JEL Classification: Q 10, Q 13.

1. INTRODUCTION

Numerous studies highlight the changes produced in the food supply chains in the context of globalization and the disruptive effects of food crises. In this context, ensuring food self-sufficiency comes again to the foreground. Since nutrition is the major determining factor in the evolution of chronic diseases, primary prevention can be achieved through dietary habits. Among the food risks, the risk related to the low fruit consumption is also mentioned.

2. STATE OF KNOWLEDGE

In the economic theory, the food sector is the object of specific analyses, stemming from different currents of thought, both in terms of market functioning and price formation, as well as in terms of production and distribution conditions. This special approach to the food issue leads to contradictory debates that lie at the origin of proposals regarding the economic policy and the food policy in particular, alternating between pure liberalism and interventionism (Alain Clément 2005).

The functioning of agri-food markets is subject to many constraints and frictions. Market imperfections have multiple origins: imperfect information, adjustment time, uncertainty and risks, biological and climatic hazards, etc. In these conditions, the economic rationality of operators has significantly changed. Questioning whether current policies lead to sustainable development in agriculture, J.C. Kroll (2005) states that all constructions of contemporary agricultural policy are based on the postulate that the international transaction rate represents the equilibrium price that should be established in a perfect competition market, which is a pure chimera, with no theoretical basis.

As Malassis L. (1977) considered, the Western model of food consumption reflects the mode of production on which it is based: this mode is increasingly industrialised. Nutrition sciences explain diets better and better, yet they do not establish them; they provide the basis for correcting the deficiencies and excesses of the market economy and improve dietary practices by formulating dietary rules.

Urbanization, income growth and foreign direct investments in the markets of developing countries are the main economic factors that influence food supply and dietary changes. The impact of these transformations is materialised in changes in the nutritional status towards overweight and obesity, fast increase in the rates of non-communicable diseases, social inequity increase, loss of biodiversity (FAO, 2004).

3. MATERIAL AND METHOD

The indicators used to evaluate the evolution of the fruit sector are the following: areas, yields, consumption, prices, trade balance, fruit production processing. In terms of self-sufficiency, we carried out a short analysis of the agricultural policy impact on the fruit sector and we developed two scenarios, starting from the analysis of available resources in the fruit sector based on the following indicators: area, production, yields (level, evolution) and from the perspective of consumption behaviour. The changes in the indicators referring to areas, yields, productions are calculated as percentage between the average of the period 2010–2014 and the period 2015–2019.

4. RESULTS AND DISCUSSIONS

The climate and soil resources are favourable for a wide spread of fruit species in our country. Land Law no. 18/1991, besides its positive aspects (ownership right reconstitution), has also had numerous negative effects on the fruit sector: the large farms were destructured and a large number of small fruit farms (without financial power) resulted, with a high fragmentation of areas under fruit trees. Over time, the high-cost credit products have triggered a chain reaction

at all levels of the supply chain. The low access to financial resources for investments has led to the degradation of existing orchards, resulting in a high percentage of old-aged orchards and a low replacement rate of orchards in decline, lack of investments in storage facilities, disruption of the flow of raw materials for the processing industry, lack of investments in processing enterprises.

In the last decade, the areas under fruit plantations decreased in all analysed species, by removing the aging orchards, while certain areas were replaced by new plantations. This had two positive consequences: 1) yield variability has been reduced, except for apples and plums, the two dominant species in fruit farming; 2) yields have increased, except for apples; the greatest increases were noticed in apricots (26%), peaches, nectarines (23%) and plums (18%). In the analysed species, production was lower in the case of apples and pears: in apples, two cumulated factors have contributed to this: decrease of yields and cultivated areas. In pears, even though yields are increasing, they cannot compensate the losses from diminishing areas. With the exception of apricots, the stone fruit species – peaches and nectarines, and plums have compensated the decline in areas by the increase of yields, so that productions are increasing in these species.

Sectoral policy. The common market organization in fruit and vegetables focuses on the establishment of association forms. Due to fragmentation and structural constraints, the degree of organization in the sector has remained low. To correct the sectoral deficiencies, MARD launched a special sub-program for the recovery of fruit farming sector under NRDP 2014–2020. This has had quite a limited impact, in the sense that the areas under orchards have decreased, but it has also had positive results in terms of yields.

Since 2015, fruit production has benefited from the basic payment scheme (SAPS) and from greening payments. Although Romanian has important raw material resources, the degree of processing is extremely low. For this reason, it was agreed that the fruit sector is in difficulty, coupled support being granted for fruit intended for processing.

In the year 2016, the coupled support for fruit covered an area under orchards of 1482 hectares, to reach 1829 hectares in 2019 (1.1% and 1.3% respectively of the national area under orchards). The annual budget allocation varied around 450 thousand euros, from maximum 474 thousand euros in 2019 to minimum 348 thousand euros in 2018.

Prices. Fruit market in the EU member states is subject to significant price fluctuations. If we compare the annual statistical data series, the fruit market in Romania is characterised by high prices, yet with low annual volatility. In the last two years, prices increased more sharply compared to previous years; the highest price increase is noticed in May, June and July, cumulating both the seasonal trend and the disruptive effects of the global health situation.

Trade, consumption and self-sufficiency. Romania's fruit trade takes place mainly in the intra-Community area. There is a negative balance of trade in all analysed species.

In the period 2010–2019, trade deficit for apples increased five times. The only species that had a positive balance of trade is the cherry tree, yet under the background of the increase in imports, it became negative.

Although the plum tree ranks first in terms of area and production in the EU, the trade deficit increased more than 28 times, plum production in our country being mainly intended for processing into alcoholic beverages and not for fresh consumption.

The average consumption of fruit and fruit products was 247.0 g/capita in 2019, on an upward trend, more pronounced for peaches and nectarines, followed by meridional and exotic fruits. Under this background, the degree of self-sufficiency has decreased.

The usable apple production (in fresh fruit equivalent) was down by 9.3% in 2019 compared to the year 2010. To meet domestic demand, imports increased almost three times; as a result, the degree of self-sufficiency decreased from 103% to 77%.

Self-sufficiency in peaches and nectarines was down from 38% to 19%, with yearly variations depending on the evolution of areas (slightly decreasing) and of yields that, although they have an upward trend, are fluctuating. Imports increased four times to meet domestic demand.

In cherries and sour-cherries, self-sufficiency decreased from 100% to 94%, under the background of the slight increase in usable production and the sharper increase in imports. In physical terms, exports increased slightly, and the share of exported production in usable production increased from 3.6% in 2010 to 5.1% in 2019.

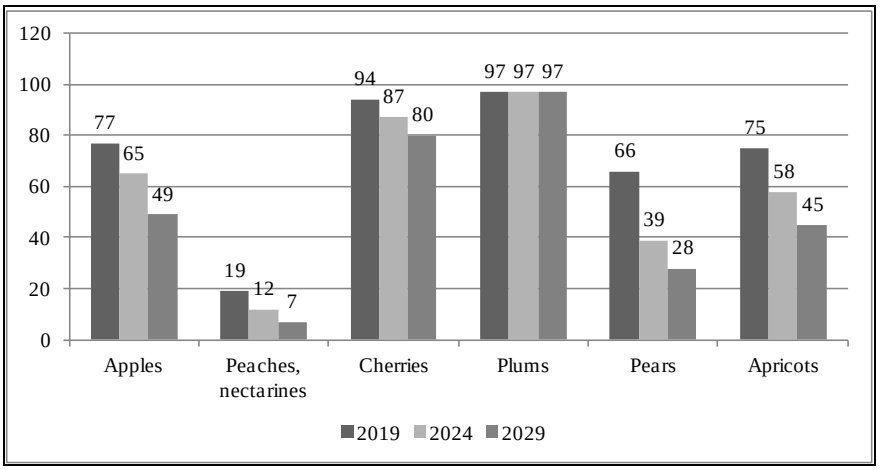
The plum product balance (in fresh fruit equivalent) shows a moderate increase of usable production as well as a considerable increase of imports (8 times) in 2019 compared to 2010, because the lack of adequate storage facilities and the high perishability of fruits significantly shortens the domestic season.

Exports are non-significant, and the degree of self-sufficiency decreased from 100% to 97%. A large part of plum production goes to processing into alcoholic beverages, although in Romania there is a tradition of consuming processed plum products (plum jam, dehydrated plums).

It is estimated that consumption will reach 249.5 g/capita in the year 2024 and 348.5 g/capita in 2029, considering that the population remains constant. Using the current cropping and consumption patterns, it results that the dependence on third markets will increase in the coming years. For instance, in the year 2029, the degree of self-sufficiency in apricots and apples will be below 50%, and consumer needs for pears and peaches will be covered by imports to a large extent (Figure 1).

In this context, the future program dedicated to the fruit sector would require more substantial finance, for investments in new plantations, especially in the conditions where the crisis generated by the international context has led to the increase in the price of fuel, as well as to significant increases in the price of natural gas and electricity. The obtained productions should be mainly directed to the domestic market.

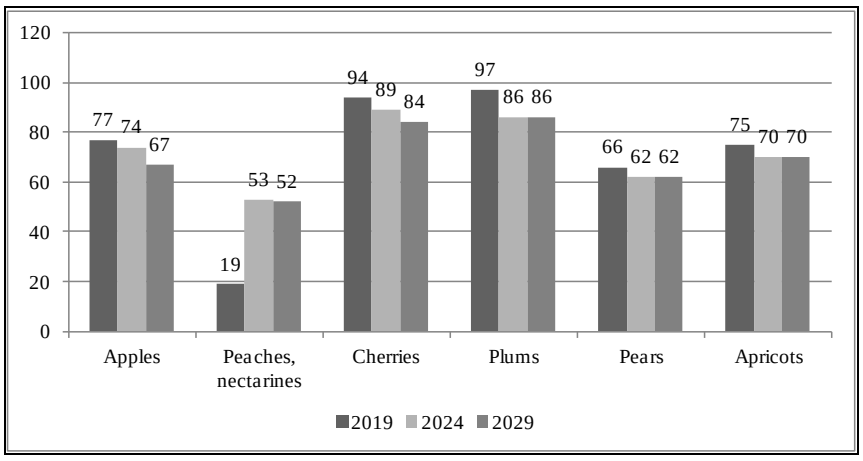
Maintaining and/or increasing the degree of self-sufficiency in the next ten years will depend on supplementing the existing areas under orchards with new, high-yielding intensive plantations, or replacing part of the existing areas, yet with weaker effects on supply.



Source: Author's calculations based on Food Balance Sheets 2010–2019, National Institute of Statistics, Eurostat, Faostat

Figure 1. Self-sufficiency in fruits in the year 2019 and estimates for the years 2024 and 2029

The total necessary area is estimated at 20.5 thousand hectares by the year 2024 or at 35.5 thousand hectares by the year 2029, with a distribution differentiated by species. In estimating the degree of self-sufficiency, we considered that imports and exports will follow the trend of the period 2010–2019 (Figure 2).



Source: Author's calculations based on Food Balance Sheets 2010–2019 and Eurostat

Figure 2. Impact of investments in the degree of self-sufficiency for the years 2024 and 2029, %

The investments in storage facilities will represent a good support in eliminating the disruptions in supply, and can facilitate the development of short supply chains.

5. CONCLUSIONS

Food security in fruit is facing many challenges. Since consumption was on an upward trend, the demand was met mainly by imports and the balance of trade deteriorated.

The climate and soil conditions are favourable, so that Romania can cover its consumption needs by domestic production. Through investments supported by the public sector, the negative trend in self-supply can be attenuated in the conditions of price increases in fuels, natural gas and electricity; this has determined an increase of the value of the implementation of all categories of projects, with EU financing or from own funds.

Perishability separates the fresh fruit market from most other agricultural sectors; the recent increase in energy prices is a restrictive factor in investments in new plantations, as well as in the development of modern storage facilities.

The increase in energy prices is transmitted through the supply chain, and the impact in consumer prices may be a consumption restriction factor.

The degree of processing is extremely low, and the amounts allocated so far have only mitigated the downward trend. Without a significant budget allocation, Romania will remain an importer of processed fruit products. Given the market trends, the coupled support measure can support producers' incomes and the supply of quality raw products to producers.

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