Some aspects of the development of viticulture in the European Union

A R Kulov[1*], A G Orlova[2] and S S Dzusova[3]

[1]Federal Research Center of Agrarian Economy and Social Development of Rural Areas – All-Russian Research Institute of Agricultural Economics, 35, building 2 Khoroshevskoe shosse, Moscow 123007 Russia
[2]Open Institute - Higher Professional School, Moscow, Russia
[3]Financial University under the Government of the Russian Federation, 49 Leningradskiy prosp., Moscow 125167 Russia

E-mail: prof_kulov@mail.ru

Abstract. The problem of restoration and development of viticulture in Russia makes it necessary to consider the trend of processes in the industry that occur in other countries, including the European Union. The article discusses the issue concerning the prices of grapes, which is characterized by the market of grapes in the world and the features of its exports and imports in individual countries. In particular, the authors note a policy change in the EU sphere of state support for the development aimed at the expansion of "decoupled support" and reduced subsidies on investments. Unevenness of the economic space for grape producers in the EU countries is emphasized, especially when some receive less subsidies with large tax payments.

Keywords: price, viticulture, investments, subsidies, agricultural producers, state support

1. Introduction

The changes that have been taking place in the viticulture industry over the past few decades and those currently observed indicate a paradoxical, controversial trend in the grape market. Since 1961, in many countries that have traditionally grown vineyards, plantings have been cut down under the influence of various political, economic, and social factors that prevailed in society at one time or another. As it was, for example, in the territory of the former USSR in 1986-1990. Or, as was the case with grape plantations after the accession of Eastern European states to the European Union. Or the processes of increasing the presence on the grape market (both table and technical varieties) observed by producers from Asia (primarily China) or Latin American countries.

If we consider the relatively long-term dynamics of the processes in the viticulture of European states, for example, then almost only three of them have positive changes from 1960-2017. In Germany, the area of vineyards increased by 51%, up to 100.25 thousand hectares; in Austria – by 33.5%, up to 48 thousand hectares; in Malta – by 66.1%, up to 1,658 hectares. In other countries, vineyard areas have declined quite substantially. For example, in Cyprus, the area of vineyards was reduced to 5.85 thousand hectares, which amounted to only 16.6% of the 1960 level; in the Netherlands, there are only 71 hectares of vineyards in 2017, in comparison to 375 hectares in 1960. In a large part of the 21 European countries, there is the smallest reduction in the area under plantings of grapes only in Portugal, “only” by 21.5% to 178.8 thousand hectares. For the considered long period, in such countries as Spain, France, Italy, Greece, Romania and others, the areas occupied by vineyards of table and technical varieties decreased more than twice. Moreover, according to the data of the Food and Agricultural Organization (FAO), countries such as Belgium, Croatia, the Czech Republic, Luxembourg, Slovakia, Slovenia, the United Kingdom eliminated vineyards altogether. And one of the possible factors that prompted UK farmers to reduce vineyards to a minimum could be virtually uncompetitive yield for industrial cultivation and production of grapes, which ranged from 30-35 c / ha. And in our opinion, withdrawal from the market, with over 54-59 c / ha observed in the 1980s, in countries such as Slovakia, Slovenia, the Czech Republic, Croatia and some others, is a consequence of joining the European Union (EU). These processes require their theoretical understanding, especially in the context of one of the key paradigms of the concept of a market economy model – is freedom of entrepreneurship. If one follows this paradigm literally, then within a single economic space, private business is free in its choice of a sphere or sector of capital investment, and no institutions of a united Europe can exert pressure or use economic instruments of influence to restrict products or services to a particular market. Moreover, in accordance with the rules of the World Trade Organization (WTO), the introduction of restrictions on market access gives rise to appeal to its relevant institutions in order to take action against the country that violated certain provisions, in this case the Agreement on Agriculture. A distinctive feature of the rules and regulations of the WTO is the declared political apathy of the organization itself. But, the use of economic sanctions by countries such as the USA, Canada, the EU, Japan, Australia and some others, regardless of the reasons for them (political, military, social, etc.), is in conflict with the idea of free trade, based on the principles of equality partners and the “fair” price for the goods supplied and services rendered within the WTO.

2. Methods

Traditional methods of studying economic phenomena, including statistical, benchmarking, monographic, and others were used in the research process.

3. Result

There is a steady increase in market prices for grapes in the European Union (EU) countries. Over the past 27 years, prices have increased by almost 96% since 1991, reaching 98 euros per 1 centner in 2018. But it is noteworthy that there are two stages: (a) this is a period of gradual increase by an average of 3.34 euros per year in 1991-2014; (b) this is time of a rapid decline by more than 19.4 euros in 2015-2018.

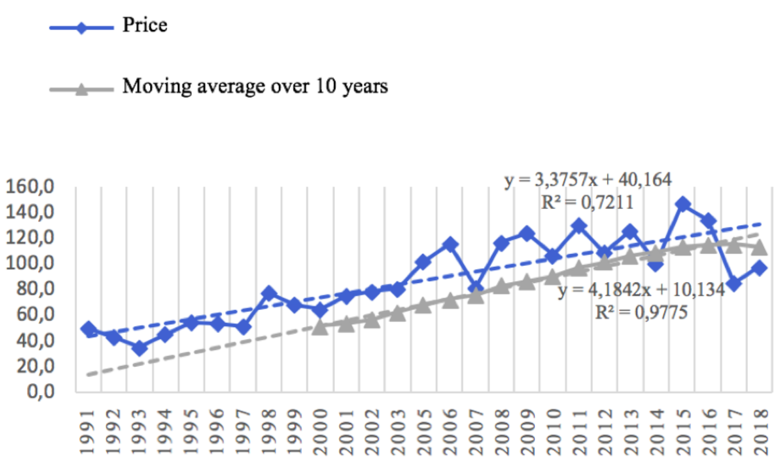

Figure 1. Market price of a commodity producer for grapes in the EU-27 and its moving average for 10 years, euro for 1 center [7].

Within the EU, fluctuations in the price of grapes in farms differ very, very significantly in different countries. And it is particularly noteworthy, in our opinion, that over a rather long period of time, the price in some countries remains relatively high, but it low in others. For example, in Italy, since 2001, the farmers have been selling this product to no less than 80 euro per 1 center. The maximum price was 213 euro per 1 center of grapes in 2011. Whereas, even in the years of high prices in the market, Bulgarian winegrowers sold products at a price not higher than 70 euro / c. And only in 2016, Bulgaria sold grapes in the EU market at a price of about 100 euros per unit. It is important to note that Bulgarian winegrowers, before joining the EU, sold products at prices that differed slightly from the prices of the European market, as was observed in 1991-1995. The same situation developed in Hungary, where commodity producers after the country's accession to the EU sell grapes at prices significantly lower than before joining the Union.

We consider it necessary to emphasize that, as our studies have shown, along with grapes, prices for the main groups of fruits and berry products have significantly decreased since the accession of the countries of Eastern Europe to the EU. This requires identifying causal relationships between the factors responsible for such changes, but already in a different study. Here we note that the heterogeneity of pricing policies within the framework of a single economic space cannot be explained solely by differences in the varietal composition and quality characteristics of grapes, even after the adoption by the EU countries of European requirements for product quality.

Table 1. Changes in grape exports in certain regions of the world, thousand tons [8].

	Indicators	China	EU-27	USA	Russian Federation
2000	Production	2967.80	1839.40	784.11	20.00
	Export	0.79	108.70	297.85	0.10
	Export share in production, %	0.027	5.9	38.0	0.5
2005	Production	4044.40	1843.30	903.20	25.00
	Export	21.10	118.60	380.23	0.10
	Export share in production, %	0.52	6.4	42.1	0.4
2010	Production	6200.00	2089.52	864.81	30.25
	Export	88.30	127.60	326.74	0.20
	Export share in production, %	1.42	6.1	37.8	0.7
2015	Production	10000.00	1752.97	947.07	100.58
	Export	227.20	87.10	327.94	1.10
	Export share in production, %	2.27	5.0	34.6	1.1
2018	Production	9450.00	1556.50	1015.40	30.92
	Export	220.00	79.00	340.00	1.00
	Export share in production, %	2.33	5.1	33.5	3.2

Moreover, despite a significant increase in the production of grapes, China maintains a relatively "parity" between the volume of exports and imports of these products throughout the period under review from 2000-2018.

Back in the early 1990s, an actual withdrawal from the grape market in selected European countries began when Belgian and Croatian farmers reduced their vineyards. Following them, the Czech and Slovak grape producers limited their production, and subsequently stopped their cultivation on an industrial basis for sale. The households of Slovenia began to cut down vineyards too. Moreover, significant areas under the grapes were reduced. In Croatia, over 21.9 thousand hectares decreased, 15.8 thousand hectares in the Czech Republic, 8.7 thousand hectares in Slovakia, and 15.8 thousand hectares in Slovenia. In countries such as Luxembourg, Belgium, and the United Kingdom, instead of destroying, vineyards could serve as a technological platform for conducting various scientific seed-growing experiments or variety trials or work on breeding seedlings resistant to various adverse conditions or for other purposes.

It is necessary to note another tendency that is currently taking place in 27 countries of the European Union. Namely, there is a decrease in vineyard areas in the countries, the main suppliers of table and technical grapes. Thus, compared with 1970, the areas of vineyards decreased in Spain in 2017 by 589.2 thousand hectares; 117.3 thousand hectares in Romania; 76.1 thousand hectares in Portugal; 660.2 thousand hectares in Italy; 119 thousand hectares in Greece; and 494.4 thousand hectares in France. Such a significant reduction in the area of vineyards could not compensate for the expansion in Austria (1.1 thousand hectares) and Germany (26.5 thousand hectares).

Even the measures envisaged by the program to support wine-making activities through allocations of the European Agricultural Guarantee Fund as a guarantee of more than 1 billion euros [1] annually during 2012-2017 did not significantly affect the overcoming of the negative trend of reducing vineyard areas. Moreover, the guarantee programs did not extend to all EU members, but only to individual, relatively recently joined European Union countries, such as Bulgaria, Hungary, and some other countries.

Moreover, in the context of reducing vine plantations in most EU countries over the 16 years from 1999 to 2015, according to Evrostat [2], an average vineyard area per holding decreased in the EU to 1.3 hectares or 45%. This was a result of the growth in the number of holdings by 70.1%, which were the result of the accession to the EU of new members in the 2000s. These holdings began to specialize in growing grapes for wine production and their number reached nearly 2.5 million farms at the beginning of 2015. But, in various EU countries, the range of deviations of the vineyard area from the average is quite significant. The largest holdings in France, where more than 800 thousand hectares of vineyards account for less than 80 thousand agroholdings, or an average of 10.5 hectares of vineyards per holding. The smallest areas of vineyards are on average in holding of Romania (0.2 ha), Croatia (0.4 ha), Slovenia (0.5 ha), Greece (0.6 ha), and Cyprus (0.6 ha). And, in countries such as Slovakia, France, the Czech Republic, Bulgaria, Spain and Germany, the farms with more than 10 hectares accounted for more than half of the vineyards. And, in contrast, in Cyprus, Greece, and Romania, the holdings with an area of less than 1 hectare accounted for over 40% of the total vineyard area in the country.

The variation of the vineyard areas, as one of the indicators of the economic parameters, largely characterizes the observed differences in the results of production activities. For example, the grouping of countries by vineyard area indicates a low productivity in holdings with relatively small land resources. Studies have shown that holdings with a vineyard area of up to 1 ha received only 2.3 thousand euros from the sale of grapes in 2016, while holdings with 13 hectares received 107.4 thousand euros or 4.8 thousand euros per 1 hectare. If the deviation of output per unit of area between the extreme groups of farms was a double value, then the differences in labor productivity exceeded the 7-fold level. On average, the labor productivity in the vineyards of the EU-28 countries gradually increases simultaneously with an increase in the workload per worker of the area under cultivated vineyards (Table 2).

Table 2. Selected performance indicators of EU vineyards [2].

	2005	2007	2010	2013	2016
Revenues per 1 employee of vine holdings, thousand euros	31.1	31.4	41.2	43.0	48.2
Load per 1 permanent worker, ha	6.6	6.9	7.1	7.3	7.45
Grapes produced per 1 holding, thousand euros	28.7	30.0	35.0	43.3	49.6
Grapes produced on 1 hectare of plantings, thousand euros	4.7	4.6	5.8	5.9	6.5

Also, the age composition of grape plantations in the EU countries attracts attention. In general, in the EU, the area of vineyards with age from 10 to 29 years is over 40.7%, 37.1% from 30 years, and the proportion of vineyards over 30 years varies from 22.2% of the area in Germany to 72.9% in

Cyprus. And what is even more remarkable is the proportion of vineyards with young plantings. Germany and France had the highest proportion of areas under the age of 3 years, it was 7.7% and 9.7%, respectively [3].

Along with measures to support the producers of grapes through the Institute of the European Agricultural Guarantee Fund, starting in 2016, such programs are actively implemented in the EU, such as: stimulating the renewal of vine plantations; assistance in promoting grape (wine) processing products to the markets of third countries; vineyard restructuring; support for investment and innovation in viticulture (see Article 19.2 of Commission Regulation (EU) No 2016/1150 [4]). These directions are implemented in the framework of measures of direct support for agricultural producers in EU countries. In general, the EU provided for the allocation of more than 42.9 billion euros in 2018 [5] under the program of direct support for agricultural producers. But, in most countries of the European Union, direct subsidies in the form of unrelated support for holding companies specializing in the cultivation of grapes for the further production of wine are of a small amount. Although, in general, support from outside in the form of state subsidies reaches 32%-37% of the income level and varies depending on the development of market institutions of the economy in the EU member state. Moreover, there are significant variable differences in the volume of direct support, for example, subsidizing the investments of farms that grow grapes for wine production. If on average, one EU holding (having about 9.3 hectares of vineyards) accounted for 741 euros of investment subsidies in 2016. In Spain, one farm accounts for 41 euros (17.6 hectares); in France – 3,148 euros (15.5 hectares); in Italy – 0 euro (5 ha); in Portugal – 1,239 euros (7.8 hectares) [6].

It should be noted that in the EU countries, the policy of subsidizing investments is replaced by expanding support programs that are not related to the volume of production (decoupled payments), including grapes. If for the period 2012-2016, direct investment subsidies on average per 1 vineyard decreased from 1,044 euros to 741 euros, then the “decoupled” support of farmers increased from 1,709 euros to 2,057 euros, making up 58% of the total subsidies (without investment) in the reporting period. For 2012-2016, the “decoupled” support for farmers in the industry changed in different ways. In Spain, it rose by 1,283 euros, reaching 3,003 euros in 2016; in France, it remained almost at the same level equal to 2018 euros for the period under review; in Italy, it had minor fluctuations in the range of 1,315-1,504 euros. In Portugal, subsidy payments, not dependent on production, dropped by 158 euros to 578 euros by 2014, and further increased to 848 euros in 2016.

The study revealed another feature that reflects the heterogeneity of the economic space of the European Union and economic conditions for producers of grapes and its products. In 2016, in the EU, for 1 euro of taxes paid by the farmer, there are 2.16 euros of subsidies received, excluding investment support funds. Whereas, in Spain, per unit of funds transferred to the budget, vineyards received 6.61 euros in subsidies, 1.02 euros in France, 1.67 euros in Italy, 4.05 euros in Portugal. In 2012, a different picture emerged when, for example, Portugal allocated to farmers 27.54 euros of subsidies per unit of euro received by the budget from the farm.

The sharp decline in vineyard areas in the European Union countries was not able to mitigate either a rise in market prices for grapes, or an increase in subsidies allocated to farms, or the use of the guarantee institution for producers. Therefore, the question of the economic feasibility of preserving for society or market benefits for the producer of vineyards cannot be provided for the decision only to the administrative authorities of the union or state without taking into account the interests of direct participants in reproduction of such a complex industry as viticulture.

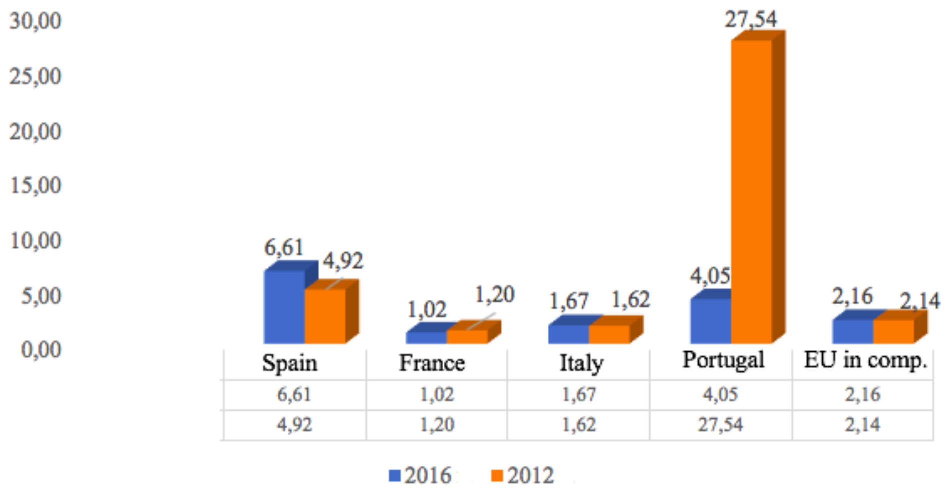

Figure 2. Excess subsidies over taxes in the EU viticulture holdings [6].

4. Conclusion

In our opinion, the above judgment takes on special significance for domestic, Russian, producers of table and technical grape varieties, scientific organizations, seed farms and breeding centers, as well as the country's agricultural authorities at the federal and regional levels.

The ambiguity of the processes occurring in the global grape market determines the need to find ways to restore and develop viticulture as a branch in Russia to increase the level of accessibility for all segments of the population of our country. This requires developing an effective economic mechanism and instruments of state support in the context of continuing sanctions against our country, which would focus on expanding vineyard areas and increasing yields, as well as the use of innovative technologies for growing and harvesting grapes. In addition, it is important to use the pricing mechanism, in which the share of agricultural producers in the unit price of grapes would not be artificially reduced due to dumping by processing enterprises during the harvest season. Ideally, it is important that the pricing mechanism contains the possibility of obtaining not only the required share of profits for simple reproduction, but also the so-called investment component, which allows for expanded reproduction mainly at the expense of own funds. The latter does not mean refusal to use borrowed funds, including loans. And it only assumes that the economic mechanism for restoring and developing viticulture can reflect the interests of direct producers, if all its main elements are involved in it based on the principles of unity and comprehensiveness.

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