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REVIEW

Dynamic development of the winery sector in Greece

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Abstract. Viticulture in Greece is the oldest, but in recent years there has been a reduction of areas intended for wine production. Wine production and marketing is a strong industry worldwide. The global and domestic market for standardized wine is considered to be complex and highly competitive. The history of Greek wine covers an extremely long period of time, the longest in the world, in terms of continuous cultivation of the vine and the timeless production of wines. The wine industry is one of the most important sectors of Greek economy not only for the domestic beverage market, but also for the development and promotion of Greek traditional products in general in foreign markets. In wine industry, structural changes have taken place in recent years aimed to increase the competitiveness of Greek wines, in order to gain a worthy position in the international market. Last five years, there has been a trend for international extroversion by Greek wine companies. Greece with wine production occupies 12th place in the world and 4th in the European Union. This work attempts to map the "route" of wine with its varieties and production quantities throughout Greece.

Key words: viticulture; grape varieties; products; white, red wines**;** export.

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ОБЗОР

Динамическое развитие винодельческого сектора Греции

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Аннотация. Виноградарство в Греции – старейшая отрасль, но в последние годы наблюдается сокращение площадей, предназначенных для производства винодельческой продукции. Производство и маркетинг вина - сильная промышленность в мировой экономике. Международный и внутренний рынки стандартизированных вин считаются высоко конкурентными и комплексными. История греческого вина охватывает чрезвычайно долгий период, самый продолжительный в мире с точки зрения непрерывного выращивания винограда и производства вин с незапамятных времен. Виноделие - один из важнейших секторов греческой экономики не только для внутреннего рынка напитков, но и для развития и продвижения традиционных греческих продуктов за рубежом в целом. В винодельческой отрасли в последние годы произошли структурные изменения, направленные на повышение конкурентоспособности греческих вин для занятия ими достойного места на международном рынке. В последние пять лет среди греческих винных компаний стали появляться тенденции к международной экстраверсии. Греция по производству вина занимает 12-е место в мире и 4-е в Европейском Союзе. В этой работе делается попытка составить карту «маршрута» вина с его разновидностями и объемами производства по всей Греции.

Ключевые слова: виноградарство; сорта винограда; продукты; белые, красные вина; экспорт.

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Introduction

Greece is a country with a long viticultural tradition, where viticulture and wine production are integral elements for many regions of Greece that continue to develop in parallel with the cultural heritage of each region. Throughout the long history of Greek wine, the vine-wine relationship is inextricably tied to all residents of Greece, from one end of the country to the other.

Thus, any reference to the history of Greek wine inevitably contains elements concerning culture, economy, religion, social and daily life, as well as the places of viticulture, wine production and consumption development. The history of Greek wine covers an extremely long period of time, the longest in the world in terms of continuous vine cultivation and the timeless production of wines. The beginnings of viticulture in Greece transcend historical times and are lost in the mists of time. Since then vineyard and wine accompany Greeks until today without interruption. The cultivation of vine is one of the most basic crops of our country. The production, processing, marketing of viticultural products are the most important activities of agricultural production.

Thus, wine is an important product for both agriculture and industry. Consumer preference is influenced by many factors making difficult for companies in the industry to formulate promotion strategies and tactics.

On the other hand, the competition with wine companies from countries that have not yet had a tradition in the industry and are dynamically entering the global market is constantly increasing. Although the production of Greek wine has decreased, there is a shift towards the bottling of superior quality wine and its export as well as a closer cooperation between companies in the sector.

From the 1960s things began to improve in the field of viticulture with introducing new technological means and planting of new grape varieties. Plus, viticulture is an integral part of the agricultural economy. In the present paper we will analyze the wine industry and the production of wines in our country.

Materials and methods

The purpose of the work is to analyze the statistics on wine-growing and wine-making, and also to consume it using the data from Ministry of Rural Development and Products of Greece and the Hellenic Statistical Authority.

Results and discussion

The wine sector is a sector with a long tradition in Hellas. According to the data of Hellenic Statistical Authority in 2015, 63,327 hectares out of the total areas with vineyards are cultivated with wine grape varieties and 39,756 hectares with raisins. The number of vineyards that cultivate wine grape varieties is 162,330 and raisins - 46,304. Dividing the vineyards of Greece into large geographical units, they are: vineyards of Northern Greece, Central Greece (including Attica), Peloponnese and Ionian Islands, Aegean Sea islands and Crete. Most areas are recorded in the Peloponnese with 25,554 hectares, followed by Crete with 22,555 hectares and Western Greece with 16,445 hectares. It is observed that the areas in which varieties of designation of origin are cultivated increased in the period 2014-2015 compared to the previous period by 3.1%. The vineyards are located in the Peloponnese, in Southern and Northern Aegean, as well as Crete. These regions occupy 76.7% of the total area with vineyards for designated wines of origin. The vineyards are further divided into smaller ones, with their own specific climatic and topographical features,

Table 1. Number of holdings and vineyard areas by production type
Таблица 1. Количество хозяйств и площадей под виноградниками по типу производства

Vineyard areas	Number of holdings	Area (ha)
Total vineyards (A + B)	188,873	103,082
Total wine varieties (A)	162,330	63,326
Production of PDO wines	29,927	14,519
Production of PGI wines	104,995	39,671
Production of other wines	33,222	6,888
Dual-use grapes	11,517	2,248
Total raisins (B)	46,304	39,756

Source: Analysis of the statistical data of the viticulture of Greece

which in conjunction with indigenous wine varieties lend to Greek wine uniqueness and diversity that distinguish them.

The grapevines are divided into:

- vines for production of wines of protected designation of origin (PDO) with 29,927 holdings and 14,519 hectares (22.9% of the total area of vines);

- vines to produce a protected geographical indication wines (PGI) in 104,995 farms and 39,671 ha (62.6% of the total area of vine).

Wine varieties for the production of other wines occupy 33,222 holdings and 6,888 hectares (10.9% of the total area of vineyards) and dual use grapes (winemaking and table, or winemaking and raisins) - 11,517 holdings (3.58 hectares and 2.24% of the total) (Economakou M., 2015). Regarding the vines for production of PDO and PGI wines, most areas for the production of PDO wines are registered in the Peloponnese with 3,603 hectares and for the production of PGI wines - in Central Greece with 6,202 hectares. The wine industry mainly consists of productive enterprises. Domestic production is fragmented among a number of wineries. The Greek wine industry consists of a small number of large wineries, many small and medium-sized wine companies, agricultural cooperatives and import companies. The registered companies that produce wine amount to a total turnover of 352,374,584 €, most of them are private (60%), while a significant share is also held by partnerships (15.9%). Wine companies in the form of SA have a percentage of 13.2%. Quite a good share of wine industry belongs to associations of agricultural cooperatives (Rousou, 2008). In the Peloponnese 34.8% of wineries is accumulated. Attica together with Crete comes in second place with a percentage of 14.8%, while third place belongs to the rest of Central Greece with 12.6%. However, based on the average annual production, the largest units are located in Eastern Macedonia -Thrace, Thessaly, Crete and the rest of Central Greece. The large wineries, although small in number, cover a significant part of production, having in their majority modern facilities and a variety of products.

They control a significant share of domestic bottled wine market, covering the entire country through extensive distribution networks. Some smaller companies produce both bulk and bottled wine, available on the local market, while others produce "limited production" bottled wine with special characteristics The distinction, which is determined by the European legislation, and also adopted by the Greek one, is the distinction of wines in Quality Wines Produced in Specified Regions (VQPRD) for table wines. Specifically, VQPRD are divided into Wines of Designation of Origin of Superior Quality (OPAP) and wines of Designation of Origin of Controlled Quality (OPE). In Greece there are 27 VQPRD wines, of which 19 are OPAP. And the rest are OPE. In OPE "Designation of Origin of Controlled Quality", includes in this category such sweet wines as Mavrodafni of Cephalonia and Patras, Moschato of Patras, Limnos, Rhodes and the Sweet of Samos. In OPAP "Designation of Origin of Superior Quality" the best wines of Greece are included. To date, there are 20 areas with the right of Designation of Origin. In the Ionian Islands, there is a Robola Kefallinia and in the islands of Paros, Limnos, Rhodes and Santorini there are such wines as Paros, Limnos, Rhodes and Santorini, respectively. Table wines come from areas that do not meet strict requirements set by law to be designated by the "Designation of Origin". Table wines come from areas where the climate, soil and cultivated wine varieties are not considered suitable for production of Appellation of Origin wines. This category includes local wines, traditional branded and branded wines. More specifically, local wines are a new category of wines, produced in specific areas or geographical areas and marketed with geographical indication of production.

There are continuous fluctuations in the participation of organized wineries in the total quantity of wine produced. In the period 2005-2006, it is estimated that the organized wineries covered 73% of the total wine production. In five seasons (2001-2006) the average wine production amounted to 3,353 thousand hectoliters (HL) (Table 2). According to the Ministry of Rural Development and Food of Greece in the period 2015-2016 a total of 2,501,100 HL of wine were produced. White wines have a higher percentage ranging from 55% to 60%, including raisin, which contributes a very small percentage. They are followed by red wines, the percentage of which amounts to 35% to 37%, followed by rosé (reddish) wines with a lower percentage of 5% to 7%. Table wines are the ones that cover most of the total market, and the percentage of 10% to 15% is covered by OPAP wines (Designation of Origin of Superior Quality). The consumption of bulk wine covers the percentage that amounts to 60% from the total amount; the remaining 40% belong to the bottled wine. Recent years, the quality and reputation of bottled Greek wines has greatly improved, confirmed by facts of continuous awards received in international competitions. Basic factor, which distinguishes Greek wine worldwide, is local Greek varieties, on which all the efforts from public and private sector are based. A significant increase in Greek wine exports was registered in 2014, both in volume (15.54%) and in value (5.20%), according to data from ELSTAT (Hellenic Statistical Authority). These data shows an impressive increase in the volume of wine exports to the European Union countries by 19.90%. Respectively, their value has a smaller increase by 6.67%. The picture is different in terms of the volume of wine exports to third countries, where a small decrease of 3.67% is observed. The export orientation of large companies in the sector is strong. The main markets of Greek wines are Germany, USA, Canada, France and Belgium. It is obvious that important steps have been taken in exports, where in recent years Greek wine is trying to gain the position it globally deserves (Table 3).

European wine production covers about 60% of world production, while Greek production represents about 1.7% of European wine production and about 1% of world wine production. Greece in wine production occupies 12th place in the world and 4th in the European Union. It is noted that unfavorable economic and consequential social conditions that prevail today, affect not only Greek wine market, but also the markets of many other countries, leading to serious deterioration in trade conditions for small and medium-sized winemakers, as sales in the industry remain stagnant. The crisis highlighted all weaknesses of Greek economy in relation to its weaknesses for productivity. The most acute problems in viticulture and winemaking sectors are the extremely high production costs and the excessive concentration of wine stocks. Also there is a tendency

Table 2. Evolution of domestic wine production (1980-2006)
Таблица 2. Развитие производства вин внутреннего рынка (1980-2006 гг.)

Wine season	Total domestic wine production, (HL)	Total production of organized wineries, (HL)	Participation of organized wineries in total production, (%)
1980-1981	5,395,000	2,589,600	48
1985-1986	4,538,232	3.040,615	67
1990-1991	3,526,000	2,644,500	75
1995-1996	3,850,000	1,925,000	50
2000-2001	3,558,000	2,490,600	70
2005-2006	4,026,550	2,939,381	73
2010-2011	2,950,000	2,124,000	72

Source: Ministry of Rural Development and Food (minagric.gr 2018)

Table 3. Export of Greek wine in seasons of 2010-2014 years (l)
Таблица 3. Экспорт греческих вин в сезоны 2010-2014 гг. (л)

From	2010	2011	2012	2013	2014
EU	33,225,700	29,450,700	29,761,100	19,854,500	23,804,700
Others countries	5,341,100	4,498,500	4,660,400	4,506,700	4,341,200
Total	38,566,800	33,949,200	34,421,500	24,361,200	28,145,900

Source: Hellenic Statistical Authority and KEOSOE.

of recent years of viticulture abandonment, due to high competition with the import of low cost wine products from Latin America. It is a serious and topical problem of today. In practice, for wineries it means the reduction of investments and growth opportunities, due to the difficulty in borrowing, and also a simultaneous reduction in sales and inputs due to the reduced consumer purchasing power. However, Greece is a popular destination with many visitors a year that has tourist areas with very high quality wine production, in which the investments in wine tourism infrastructure are provided to help in promotion of winemaking sector of our country.

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