

The development, the present situation and the prospects of Greek agriculture

Athanassios Papageorgiou

Technological Educational Institute of Kalamata,
Faculty of Agricultural Technology. E-mail: ath.papageorgiou@teikal.gr

Abstract. There is a general consensus that the future of the European agricultural sector faces great insecurity. However, while agricultural exodus continues to constitute, in many Southern European Union regions, one of the most significant manifestations of agricultural occupational mobility, rural exodus should not be taken for granted. A large part of the surplus of agricultural labour force is absorbed locally due to economic decentralization and the concomitant development of nonagricultural activities, especially in the tertiary sector. The development of part-time farming and pluriactivity provides supplementary income to the farm holder or to other family members. This has allowed the survival of small, non-viable holdings which could not have been sustained otherwise. However, traditional and often outdated production and cultivation systems, as well as trade methods, hinder agricultural sector growth. In Greece, these dynamics have caused a number of changes to the employment structure of the active agricultural population, to agricultural income and to the country's agricultural competitiveness. The last forty years have witnessed a decrease in the percentage of the active agricultural population from 36% during the 60s to 10.5% in 2007, agricultural income has over tripled, the agricultural gross national product is 7.3% of the GNP of the country and although the agro-food trade balance is in deficit, the value of agricultural exports represents 19.6% of the total exports of the country.

Key words: agricultural employment, pluriactivity, agricultural income, agricultural competitiveness, Greek agriculture.

Résumé. Il y a un aperçu général que l'avenir du secteur agricole européen rencontre une grande incertitude. Cependant, bien que l'exode agricole continue de constituer, au moins pour le grand nombre de pays du Sud de l'Union Européenne, l'une des manifestations les plus importantes de la mobilité professionnelle rurale, l'exode rural n'est plus évident. La décentralisation économique, qui se réalise avec le développement simultané d'autres activités, notamment du secteur tertiaire, absorbe sur place une grande partie de la main-d'œuvre agricole excédentaire. Le développement de la pluriactivité et de l'agriculture à temps partiel permet le maintien des petites exploitations marginalisées et non viables en elles-mêmes, grâce aux revenus supplémentaires des membres de ménages agricoles. Or, cela contribue au maintien aussi bien des systèmes productifs que des méthodes commerciales anachroniques et dépassés, qui freinent l'évolution du secteur. En Grèce, cette dynamique a provoqué un ensemble de modifications de la structure de l'emploi de la population active agricole, du revenu des agriculteurs ainsi que de la compétitivité de l'agriculture du pays. Au cours des quarante dernières années, le taux de la population active agricole a diminué d'environ 36% au cours des années 60 à 10,5% en 2007, les revenus agricoles ont plus que triplé, la part du PIB agricole s'élève à 7,3% de PIB du pays et bien que la balance commerciale agro-alimentaire soit largement déficitaire, la valeur des exportations agricoles représente 19,6% de celle de l'ensemble des exportations du pays.

Mots-clés: Emploi agricole, pluriactivité, revenu agricole, compétitivité agricole, agriculture grecque.

Introduction. After the Second World War and the Civil War that followed and lasted until 1949, Greece experienced many important changes, especially in rural areas. Between 1950 and 1970 an outward oriented and dependent development is observed, which is characterized by three major elements:

1. Upheaval in demographic trends and agricultural employment due to large scale migration to developed capitalist countries and on a secondary basis to urban

areas: during this period more than one million Greeks left the country because of economic, social and political reasons¹.

2. Uneven economic growth, as development is geographically polarized between the two arterial routes Athens – Thessaloniki and Athens – Patrai, at the expense of the rest of the country which is deserted.
3. The deficit of the trade balance which although concealed by the income from the tourism industry, the capital of the Greek Diaspora as well as foreign exchange earnings from the Greek maritime industry, intensifies the dependence.

Only after 1981 do the demographic censuses record, in a noteworthy number of prefectures, a reversal of the population decline which was due to large scale immigration. It is the time when Greek rural areas start to show signs of attractiveness and dynamism caused by two main factors:

- The 1973 Oil Crisis and the slow-down in economic growth of western countries, which resulted in the decline of the immigration wave and the repatriation of almost half of the ex-migrants and,
- The inflow of European funds, when Greece joined the European Economic Community (EEC) in 1981.

In Greek rural regions, besides the industrial activity which, with the exception of some agro-industries, is shrinking in the recent years, the substantial net increases in service sector employment has given a new dimension to the life in these regions. The positive performance in creating rural employment results from specific territorial dynamics that include aspects such as regional identity and entrepreneurial climate, public and private networks, or the attractiveness of the cultural and nature environment (von Meyer 1997).

Rural areas are transformed into local economic units with a diversification of agricultural, industrial and service activities and a supply of rural amenities for urban people (Post & Terluin 1997), such as tourism and recreational destinations and retirement communities. The potential of nonagricultural diversification and the income growth of farm households have contributed to the maintenance of the population in the area.

Similar to other European countries, these dynamics have caused a number of changes to the employment structure of the active agricultural population, to Agricultural income (AI) and to the country's agricultural competitiveness. In Greece, the last forty years have witnessed a decline in the percentage of the active agricultural population from 36% during the 60s to 10.5% in 2007, a percentage which is reduced significantly if the distribution of the working hours of the farm holder between agriculture and other activities is taken into account. Ninety per cent of the family labor force in agriculture, i.e. the vast majority of the active agricultural population, does not have full-time employment in this sector while nearly 25% spend less than half of their total working time. However, the agricultural sector continues to constitute a significant economic activity for a great number of rural regions. Between 1961 – 2004, AIs over tripled. Since then, the agricultural Gross national product (GNP) is 7.3% of the GNP of the country and although the agro-food trade balance is in deficit (-2,591.6 million Euros), due to low product competitiveness, the value of agricultural exports represents 19.6% of the total exports of the country.

This article consists of three parts. The first part analyses agricultural employment and income. The second part presents some characteristic elements of the dynamics of Greek agriculture. Finally, the third part considers some particularities of the agricultural product competitiveness of the country at national as well as international market level.

1. Greek Agricultural Employment and Income. There are many different forces leading to a restructuring of rural economy, society and labour markets. Post & Terluin (1997) note that: "in the course of the process of economic development, labour is

¹ Half of these people moved towards Western Europe, especially Germany, and the rest to traditional immigrant-receiving countries (U.S.A., Canada and Australia). Ex-farmers and farm workers became industrial and construction workers in Northern European countries (Vemicos 1975).

pushed from the agricultural sector and pulled into the other economic sectors. The strength of the push sector depends on income in agriculture which is related to the scale of agricultural activity and the ability to sell agricultural products above production costs, whereas the strength of the pull factor is determined by employment opportunities outside agriculture in the local labour market and the income which can be earned outside the agricultural sector". We observe the consistency of many rural employment changes: the inexorable decline in agricultural employment, the increase in services employment, especially linked to tourism and recreation and their coherence with changes in urban labour markets (Bryden & Bollman 2000).

Competition and the difficulty in the distribution of many agricultural products on account of market saturation and the malfunctions concerning the quality of products has put the utility of the "productivist farming system", characterized by an continuous modernization and industrialization of agriculture, into question (Ilbery et al 1997). Farm businesses seek to develop new sources of income through different types of agricultural production and nonagricultural diversification. Since the mid 1980s, agriculture in the European Union (EU) has entered a period of "postproductivist transition". The objectives of agriculture have been progressively reoriented: from maximizing the production of food within a highly protected and subsidized food supply system, towards reducing food output, providing environmental goods, and producing within the context of an increasingly competitive international market (Bowler & Ilbery 1997). In the 1990s, both productivist and postproductivist farming systems coexist, with intensive, high input - high output farming and its emphasis on food quantity and low costs now being complemented by low input - low output farming, with an emphasis on sustainable farming systems and food quality (Ilbery et al 1997).

The primary concern of human resources regarding agricultural development focuses on two main points: the quantity and primarily, the quality of its labor force. The attitudes and the availability of farm holders determine both the quality of farm businesses and the underlying philosophy of their development.

1.1. Agricultural Employment in Greece. During the last forty years, the key developments observed in Greek rural areas are: a) the decline of population due to immigration (mainly until the beginning of the 1980s) and the ageing of the population, and b) their renewal of jobs, owing to the increased opportunities of industry and tourism.

In the mid-1960s those working in the primary sector accounted for approximately 35% of the labor force of the country, in 1991 the percentage dropped to 22% and the 2001 census shows that this figure fell to 16.1%. According to more recent data (2007), agricultural employment has suffered even heavier losses representing 10.5% of the Greek labor force. However, this figure continues to remain considerably high when compared to the EU average, which was about 5.5% before the 4th and 5th enlargement of the EU with 12 new Member-States (M-S).

The connection of the agricultural population with tradition and conservatism does not allow the disconnection from family holdings, the reduction of their number or their absorption by larger farms. It is quite characteristic that during the 1980s most developed OECD countries witnessed a high reduction in agricultural employment. By contrast, this reduction was only -1.7% for Greece, second only to the United Kingdom, a country with a traditionally small proportion of the labor force engaged in agriculture (Post & Terluin, 1997).

The number of farm holdings decreased from 950,000, which was the figure in 1983 - the first period of Greece accession to EEC - to 817,059 in 2000. The data of the Farm Structure Survey (2007) estimate that there are 860,150 farm holdings accounting for 85,412,800 hectares of utilized agricultural area. 71.2% are in less favorite or mountain areas, 31.7% is irrigated land, while 4.8% of the land is under organic farming.

Agricultural activity remains family based, depending on the work of the farm leader and his family members (see Table 1). Ten per cent of the farm workers are

employed full-time². From the remaining 90% who work part-time³ (66% for farm leaders), only 65% is occupied with agriculture more than 50% of their total working time (Gasson 1986). Regarding their employment outside agriculture, 23% of the total has another main or secondary gainful activity, in other words, they are pluriactive farmers⁴.

Table 1

Agricultural labour force in Greece (2007) (1000 persons)

<i>Total</i>	<i>Full time</i>	<i>Part time</i>	<i>Part time of which main time</i>	<i>With other gainful activity</i>
Labour force				
1508,18	127,04	1381,14	347	
Family labour force				
1271,6	138	841,8	253	291,8
Sole/main holders				
710,4	102	467	100	141,3
Spouse of sole holder				
348,3	2	270	47	76,3
Other members of the holder's family working on the holding				
212,9	34	104,8	23	74,2
Non-family labour regularly employed				
29.3				

Source: European Commission (2007)

Concerning farm leaders, the analysis of farm holding structure shows that 37% comprises of persons aged 65 or over while young farmers under 35 correspond only to 7% of the total. Such labour structure is explained not only by demographic but also by social factors connected with the rejection by the younger generation of low-status, unskilled and low-paid works in rural areas. The improved level of education and standard of living as well as the spreading out of urban consumption patterns led to the creation of high expectation by the younger generation, who looked for jobs out of agriculture and out of rural areas. This phenomenon is also intensified by the pressures for technological modernization and the restructuring of farm businesses towards intensive crops, which result in the growth of nonagricultural employment of family members and in greater seasonal demands for labour (Kasimis & Papadopoulos 2005).

If we take into account those who work full-time and those who work part-time at a rate of more than 50% of their total working time in agriculture (979,800 persons), then the proportion of people whose main occupation is agriculture is reduced from 10.5% to 8.1%, of which only 2.6% is full-time workers. Furthermore, because a large

² Full-time labourers in agriculture are those workers who spend one annual work unit on agricultural activities, which has a minimum amount of 2,200 working hours.

³ When a person spends less than one unit on agricultural activities, he or she is classified as a part-time farm labourer. There are three main reasons for being part-time employed:

- A person has other gainful activities;
- Employment on the farm is insufficient to offer a full-time job; or
- A person chooses voluntarily for working part-time. (Post & Terluin 1997)

⁴ Pluriactive farm labourers are those part-timers who are engaged in other gainful activities in addition to their agricultural activities, such as:

- Para-agricultural activities (e.g. food or drink production, production and sale of regional products);
- Nonagricultural activities on the farm (e.g. tourism on the farm, farmers as producers of landscape and nature);
- Employment on other farms (hired labour); and
- Off-farm activities (Post & Terluin 1997).

number of farmers, especially those who work part-time, are over 65 years old, it can be concluded that they belong to the category of part-time workers without another gainful activity. This last categorization is an important fact in order to understand the reduced competitiveness of products.

Although the development of agricultural employment towards the increase of part-time farming and pluriactivity helped to improve the income of small farm holdings and prevented agricultural exodus, it also limited the productivity and the competitiveness of the sector because of the extensive realization of the phenomenon. The operation of rural areas is characterized by the establishment of Nonagricultural activities (NAA) which are usually not integrated in the local productive system, often demoting agriculture into a secondary activity.

Farmers restructure their businesses to be supplementary to tourism activity, to the time of year and employment needs. An example of this would be the planting of olive trees which require little care. Some farmers are exclusively interested in cultivating species which provide access to EU farm subsidy payments without, in reality, being occupied with their holdings, while many pluriactive farmers do not care for the quality of their products.

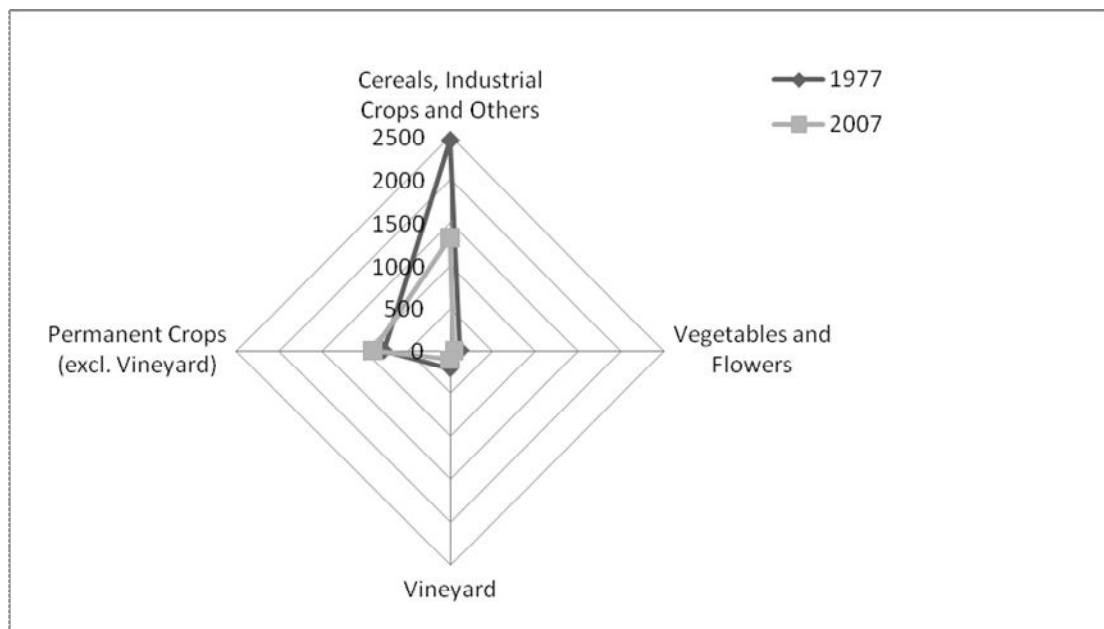


Figure 1. The Greek agriculture land use.

The indifference of many pluriactive farm holders and farmers concerning the level of the selling price of products makes them less demanding during the negotiations with traders and industrialists, reducing the negotiation power of the rest of the producers. They are not interested in collaborating with other farmers to overcome the limits that exist due to the restricted size of their holdings (5.6 hectares on average). They are also not interested in participating in the production of local products, products of protected designation of origin, special qualitative standards and so on. They are satisfied with the mere survival of their holdings.

Diagram in Figure 1 demonstrates the differentiation that exists in land use between 1977 and 2007. Regarding arable land, it appears that cereals, dried pulses, root crops and industrial crops exhibit a substantial decline, as do fresh vegetables. On the other hand, the increase of greenhouse cultivations during the same period is notable. Permanent crops increased while the decrease of vineyards is significantly influenced by the reduction of dried raisin cultivation, a traditional crop which has many demands in regards to the postharvest procedure.

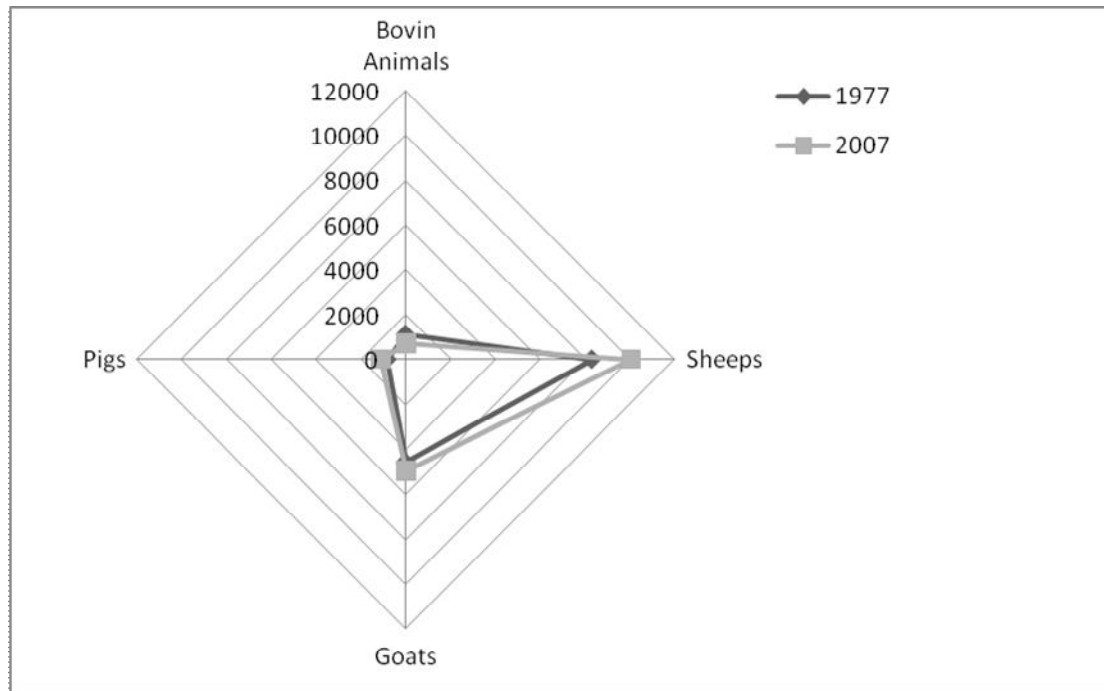


Figure 2. The Greek agriculture livestock.

Diagram in Figure 2 shows the development of livestock between 1977 and 2007. In Greece which is a country that specializes in crop production, livestock husbandry reports significant growth, with the exception of bovine animals, the number of which seems to have decreased. This reduction is due to the decline of indigenous breeds in preference to raising improved ones. The breeding of sheep and, on a secondary basis, of goats increased, due to an extensive and without great investments system, as did swine breeding because of the relative low price of its meat and hence the increase in consumption.

1.2. Agricultural Incomes. If the assessment of employment of a production sector allows us to examine the quantity and the time availability of the labor force, the generated income reveals its effectiveness, in other words, income reveals how productive and profitable the particular activity is. The analysis of income structure permits a better understanding of:

1. the economic structure of the local economy and labour market which reflect the types of employment opportunities (Findeis et al 1997) and
2. the process of agricultural activity development as well as the factors that have most influenced the professionalism of farmers (Purseigle 2009).

The data that follow are part of the results of a study which was conducted in the context of the research program "Archimedes". The title of the study is "Inputs - Outputs in AIs 1981 - 2001". In this study we focus on the relationship between agricultural and Nonagricultural incomes (NAI) per region. The significance of analyzing the dynamic development of AI structure during the adaptation period of agricultural employment to market enlargement - an outcome of Greece's EU membership, compelled us to extend our approach from 1961, a year prior to the association of Greece with the EEC, to 2004.

Table 2 shows the development of the total AIs⁵ in fixed prices for the 13 administrative regions of Greece from 1961 to 2004. It can be concluded that, although at country level AIs have almost over-tripled, there are significant regional disparities. The most substantial rise is found in Attica, a peri-urban zone which includes Athens, the capital city of Greece. The second most important AI is again located at a peri-urban

⁵ Income declared by farmers

zone, the region of Central Macedonia, which incorporates the second largest city of Greece, Thessaloniki. Central Macedonia is the main producing area of peaches, the raw material for the production of canned deciduous fruits which represents the most important agricultural industry in Greece. Crete comes third in AI. One of the most important reasons of income growth in this region is due to the fact that the island is the major production zone of off-season greenhouse crops in the country. Central Greece is a region that borders to the South the region of Attica and specializes in industrial crops. The Peloponnese is an area where tree cultivations dominate and generate satisfactory profits. Finally, Thessaly is the main region of producing grains and many industrial crops.

Table 2

Evolution of AIs in Greece (in fixed prices 1961) (Millions of Drachmas)

<i>REGION</i>	<i>1961</i>	<i>1971</i>	<i>1981</i>	<i>1991</i>	<i>1994</i>	<i>2004</i>
Attica	902	1.379	1.481	3.014	2.796	16.914
Stereia Hellas	2.465	4.526	4.833	5.003	4.567	8.924
West Hellas	2.458	3.782	6.639	5.971	5.530	6.257
Peloponnese	3.065	4.448	6.920	6.707	5.530	8.278
Ionian Islands	670	915	1.395	1.154	1.004	1.897
Epirus	950	1.703	2.570	1.658	1.310	3.009
Thessaly	2.849	5.039	7.383	8.724	7.715	7.466
West Macedonia	1.152	1.743	1.800	1.542	1.201	2.832
East Macedonia & Thrace	2.470	3.810	4.475	4.846	4.096	5.171
Central Macedonia	5.270	8.961	10.134	11.072	10.216	12.128
South Aegean Islands	555	789	1.050	1.067	948	2.374
North Aegean Islands	1.024	991	1.468	1.078	916	4.405
Crete	2.306	2.514	4.896	6.539	6.084	10.176
TOTAL	26.135	40.600	55.046	58.373	52.109	89.830

Around 1981, the year of the accession of Greece to the EEC, AIs demonstrate a significant rise. This is due not only to the increase of product prices as there was a price convergence between Greece and the EEC, but also to European subsidies. Nevertheless, during the decade 1986 -1996, the increase of AI declines since the number of farmers fall and many local products cannot compete with the products imported from the EEC. After the corrective actions that took place in the 1990s, the last decade has shown signs of improvement for AIs. It is worth noting, however, that EU subsidies represent half of the AI. This has resulted in the agricultural sector being transformed into the most subsidized sector of the Greek economy. As a consequence, Greek farmers are no longer counted among the poorest income groups of Greek society in particular when one adds to their farm income other incomes accruing from sources like off-farm employment of family members, rent and interest income, transfer of payments etc (Demoussis 2003).

Table 3 shows the percentage of farmers' incomes that are derived from NAA in relation to their total income per region. The regions with the largest proportion of NAI are areas of tourist interest (the Aegean Islands, the Ionian Islands and Crete) and areas of significant industrial growth (Central Greece, Western Greece and Central Macedonia). In the region of Attica, the composition of farmer incomes is characterized by a high percentage of NAI due to the potential of earning supplementary income from the secondary and primarily, the tertiary sector as many industrial activities are concentrated in Athens. The AIs of Thessaly rose significantly since the main arterial route of Athens – Thessaloniki, where again there is a dynamic presence of industrial activities, stretches across the region. The percentages of NAI of the other regions also display substantial

rise, mainly because there is a transfer of remittances from Greek migrants or ex-migrants. These are the regions which in fact experienced the large wave of immigration during the decade 1960 – 1970 more than the others.

Table 3

Evolution of the percentage of farmer's incomes from NAA (%)

<i>REGION</i>	<i>1951</i>	<i>1961</i>	<i>1971</i>	<i>1981</i>	<i>1991</i>	<i>2001</i>
Attica	0.17	0.21	0.26	0.28	0.32	0.34
Stereia Hellas	0.09	0.11	0.12	0.15	0.20	0.22
West Hellas	0.09	0.10	0.12	0.17	0.20	0.22
Peloponnese	0.08	0.09	0.10	0.15	0.19	0.20
Ionian Islands	0.08	0.12	0.15	0.17	0.24	0.24
Epirus	0.06	0.08	0.09	0.10	0.13	0.15
Thessaly	0.05	0.08	0.10	0.13	0.15	0.19
West Macedonia	0.06	0.07	0.08	0.10	0.13	0.15
East Macedonia & Thrace	0.05	0.07	0.08	0.11	0.11	0.13
Central Macedonia	0.09	0.12	0.14	0.17	0.21	0.22
South Aegean Islands	0.08	0.13	0.16	0.19	0.20	0.25
North Aegean Islands	0.08	0.12	0.15	0.18	0.19	0.24
Crete	0.07	0.12	0.13	0.24	0.26	0.26
TOTAL	0.080	0.105	0.125	0.160	0.200	0.215

2. The Dynamics of Greek Agricultural Development. The agricultural sector in many regions of the EU is encountering difficulties. Many times the distribution of products is not safeguarded. The competition which exists in the international agro-food systems and the fluctuations of prices in the food futures markets are becoming more and more intense. Many products are confronted with saturated markets while doubts regarding their nutritional and gastronomic value are worrying and have tired consumers.

The initial euphoria of European farmers, which was caused by the abolition of barriers to international market access and thus providing them with increased opportunities for exports during the 1960s and 1970s, contributes to the increase of intensification, concentration and specialization of cultivations, which reach their limits in the beginning of the 80s. One of the more profound contradiction of agriculture is rising productivity and falling prices generating a continuing and apparently unsolvable crisis (Walker 1997). More recently, the loss of production identity since the intensification process of the productive system becomes homogenized has created a cultural crisis of agricultural products as well.

Not only do AIs decrease, but they also become dependent on the fluctuations of a more and more limited number of markets as no alternative sources of income exist due to production specialization. At the same time, a considerable proportion of these incomes originate from EU subsidies. "The difficulties regarding the remuneration of producers exacerbate even more the existing confusion. In these conditions, the identity of the profession becomes ambiguous. Even agricultural techniques, which were for a long time considered as profitable, if not beneficial, have recently become a matter of violent disagreements (Lacombe 2002). Many hundreds of thousands of farmers have disappeared because of competition. As a result, the problems of agricultural desolation, rural abandonment and the expansion of uncultivated land have arisen (Briel & Vilain 1999). Other farmers become pluriactive, cultivating crops which are less labor-demanding.

The association agreement between Greece and the EEC in 1962 created euphoria to producers because of the abolishment of the impediments concerning entry into the international markets. The increase in exports which is observed during the sixties and

the seventies contribute to the growth of intensification, concentration and specialization of crops, which up to the end of the eighties reach their top limits.

As of the end of the 80s, few years after the country's accession to the EEC (1981), we observe the first symptoms of excessive intensification and specialization of Greek agriculture. Its connection with the mechanisms of the Common Agricultural Policy supports producers' income with either agricultural price policies or subsidies, reinforcing thus the optimism of producers concerning profit making and, by extension, concerning the future of their holdings. However, this is not justified by their dynamism per se and the strategy concerning improvement of quality and product differentiation.

The vast majority of farmers, affected by serious structural weaknesses and productivity problems, do not strive for a macroscopic approach of farm management. These problems revolve around the small size of holdings, the high level of fragmentation, the low level of farmers' education and training, the underdeveloped marketing of agricultural products, and the state of the cooperative movement and of the bureaucratic public administration (Kassimis et al 2003).

Income increase and the improvement of living standards was the result of extraneous interventions in relation to the conventional Greek agricultural farming system. However, the advantages from the accession of Greece to the EU remained unexploited by the great majority of producers. This seems to confirm what Harrison and Kennedy had noted in 1977: "Supporting domestic production at artificially high prices may detract from the competitive advantage of the nation by inhibiting the development and adoption of new technologies".

Furthermore, the cutback in private investments, irrational management of EU funds and ineffective structural policy appear to have played a decisive role in the fall in the competitiveness of Greek agriculture (Demoussis 2003; Petropoulos 2007). A substantial part of the increased income is directed towards consumption and urban real estate, disregarding investments which would improve the infrastructure of their holdings.

Beyond all forecasts, the accession of Greece to the EU did not set in motion the integration of its agricultural structures, but rather it seems to have reinforced the heterogeneities and inequalities at many levels. Agricultural labor becomes much more complicated. Often, small-scale trade, production for own consumption, contract agriculture and paid employment co-exist within the context of the same agricultural holding. The vast majority of farmers pursue a survivalist model of farming depending on various combinations of land, labour and capital (Daskalopoulou & Petrou 2002). Furthermore, as previously stated, individual or family pluriactivity of the agricultural household tends to be the norm. Another symptom which shows the widening of imbalances is the large gap that exists between an agriculture which is industrialized, intensive and modernized and one that focuses on survival, is traditional and outside commercial networks, like the agriculture of the islands and the mountainous areas of Greece (Damianakos 1999; Damianos & Skouras 1996; Costa 2005).

The entry of the country into the international market strengthened the increase in exports, but instead of modernizing agricultural holdings, the development observed was more quantitative than quality-linked. The farmers' interest in immediate and easy profit, made them have a short-sighted and one-dimensional consideration of the management and the general strategic development of their holdings, frequently encumbering their dynamism and sustainability. In a time of trade liberalization and globalization, the capacity of rural people to respond to potential opportunities and threats by creating new sources of income and employment to replace declining employment in agriculture, other primary industries and services should not lead to the degradation of production activities and the cultivation tradition of these areas (Bryden & Bollman 2000).

Both Tables 4 and 5 reveal that since 1986, which signals the first period of the accession of Greece to the EEC, and until 1994, the production of a traditional Greek cultivation of fruits and vegetables demonstrates a significant increase without, though, a respective increase in exports. A large part of the production is withdrawn from the market because of distribution problems. A characteristic example is the cultivation of

oranges and peaches. It is only after 1998 that a balance in produced quantities is observed. The upheaval that was caused by the accession of Greece to the EEC seems to have lasted more than 15 years. The most competitive Greek products in the international market are typical Mediterranean products, such as olive oil, dried raisins, table olives, and table grapes which are an off-season crop. We should also add the sector of fruit processing, especially peaches which is the most internationalized sector of the Greek agricultural economy.

Table 4

Evolution of some perennial crops in Greece (000 tn)						
	1986	1990	1994	1998	2002	2006
Fruits						
Orange Production	881.1	855.4	930.2	797.3	1,176.0	855.6
Product withdrawn from the market (%)	20	30	18	11	1	1
Lemon Production	186.2	117.9	146.6	159.6	108.8	40.5
Apple Production	311.5	350.2	329.8	310.7	229.3	262.9
Product withdrawn from the market (%)	26	46	30	12	4	1
Apricot Production	81.6	113.0	78.9	26.2	54.2	59.7
Product withdrawn from the market (%)	0	22	22	0	5	0
Peach Production	512.1	815.3	1,177.9	489.0	678.0	618.0
Product withdrawn from the market (%)	36	51	64	1	1	2
Table Grape Production	255.3	220.3	292.1	212.1	165.0	140.0
Raisin Production	145.1	77.0	76.7	82.9	35.9	80.3
Canned Deciduous Fruits Production	177.1	270.2	253.4	341.0	255.0	331.0
Olive Oil						
Production	230.0	167.4	357.8	466.0	414.0	370.0
Table Olives						
Production	78.9	65.5	61.2	85.0	95.0	115.0

Source: Ministry of Agriculture

The production of other species, concerning either crops or animals, is intended for internal consumption, while others, such as cotton and tobacco, the cultivation of the latter being on the verge of extinction, are highly dependent on European subsidies.

Diagram 3 demonstrates the contribution of individual species to the value formation of the export trade of the country (2007). The tobacco and cotton sectors represent a significant part of this. Both these crops are subsidized and target third-country markets. Apart from the species mentioned above, the strength of the aquaculture sector should also be noted.

3. Greek Agricultural Competitiveness. The opening-up of international trade, the growing pace of globalization and the strengthening of competition have given new meaning to the concept of the individual skills of production sector. Market and economic policy entities using existing tools, are interested in obtaining a clear picture of the level of competitiveness, the size and kind of their problems.

Table 5

The development of exports of certain Greek perennial crops (millions of \$)

	1986	1990	1994	1998	2002	2006
Exportations	5,669	7,996	7,927	9,591	10287.8	20637.7
Food and Live Animals	1,247	1,625	1,594	1,836	1736.8	2927.6
Fresh and dried Fruits	376.5	443.5	390.0	365.0	462.7	573.4
Oranges	129.0	122.6	108.2	80.3	109.9	106.9
Apples	3.4	3.2	2.3	3.9	6.7	16.4
Apricots	19.4	18.2	9.2	5.6	9.8	17.6
Peaches	33.1	38.8	32.2	26.8	40.8	47.0
Table Grapes	50.2	68.7	67.2	126.8	87,9	134,1
Dried Grapes	126.6	129.1	60.8	64.3	40.8	48.3
Canned Deciduous Fruits Production					293.6	361.9
Olive Oil	203.9	286.1	276.9	271.5	207.2	505.0
Table Olives	6.3	102.3	36.9	142.1	164.5	246.3

Source: Hellenic Statistic Authority

Although the notion of a competitive company is almost clear, there is still no persuasive theory to explain national competitiveness (Porter 1990). In the beginning, the notion of competitiveness was used to demonstrate the ability of a firm, of a production sector or of a branch of economy to cope with the competition of its opponents. Later on, such notion was of wide application both at the level of formation of the central policy, even at the level of the European Union (White Paper 1993), and in the form of an index measuring the ability of the local economic systems: "territorial competitiveness" (Morgan 1997; Morgan & Nauwelaers 1999). The definition of competitiveness adopted in the texts of the European Commission is: "The ability to produce goods and services which meet the test of international markets, while at the same time maintaining high and sustainable levels of income. Or more generally, the ability of companies, industries, regions, nations and supra-national regions to generate relatively high levels of employment and standards of living, while exposed to international competition" (Mouqué 1999).

Nevertheless, there is also a counter-argument to this position concerning national competitiveness. M. Porter (1990) notes that "defining national competitiveness as achieving a trade surplus or balanced trade per se is inappropriate" and the nation's standard of living is not ensured – a basic prerequisite of national competitiveness. P. Krugman (1994) maintains that countries' competition does not exist as a concept because "countries are not closed down like companies are". Indeed, the prosperity of a country is considered an internal matter, which mainly depends on the increase of productivity. Increasing the country's involvement in international trade will allow the increase of imports and hence the enhancement of its prosperity. The writer reminds us that international trade does not pose a problem of competitiveness among countries, but rather a problem of exchanges for higher profits of all parts involved (Krugman 1993).

If we are to examine competitiveness from the point of view of companies, then this concept can be defined "as the ability to profitably create and deliver value at prices equal to or lower than those offered by other sellers in a specific market" (Harisson & Kennedy 1997). At the international level, competitiveness measures whether a commodity can compete with similar goods on the international market, given the costs

incurred in the production process (Mubarik 2001, p.2). If a product is competitive, then it can co-exist with the imports of a country and/or be exported. By contrast, if the product is not competitive, then it needs protection from imports, its export potential is low and only if it is subsidized, can the competitiveness of such product improve in relation to its price.

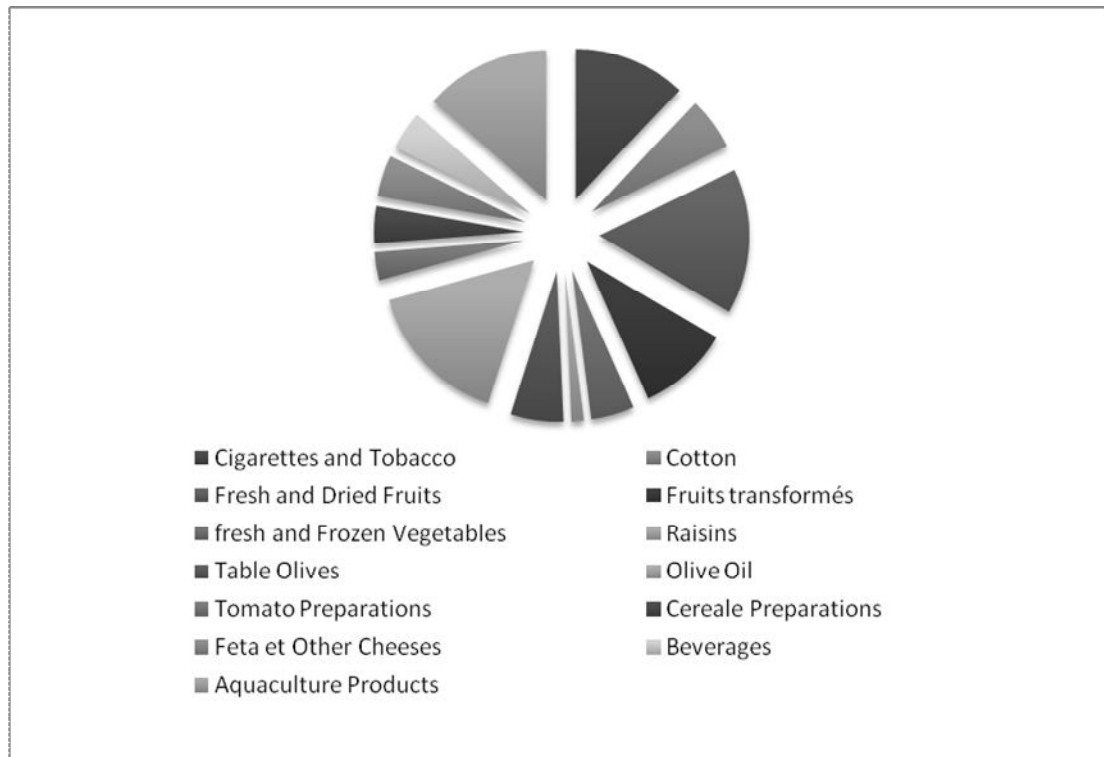


Figure 3. The contribution of agricultural exports to the value formation of the export trade of Greece (2007)

The strategic management school defines competitiveness as the ability to profitably create and deliver value through improvements in technology, attributes of purchased inputs, production economies, product differentiation and external factors, i.e. the five primary sources of competitiveness. As the firm gains advantage in these sources, market share and profits increase. Thus, market share and profits serve as a measure of a firm's relative competitiveness (Harisson & Kennedy 1997).

Regarding the agricultural sector, such tools are production growth, productivity and international competitiveness, which are equally important whether we analyze them individually or in combination. Our approach in regards to the competitiveness of Greek agriculture is divided into two parts. The first one analyzes the development of agricultural production and the second one presents the international competitiveness of Greek agricultural products by analyzing their trade balance and the presence of some typical Greek products in the European market.

3.1. The Competitiveness of Greek Products in the International Market.

Assuming that, in order to have an estimation of competitiveness in the international market, the agro-food markets must be competitive first at home (Mubarik 2001), we are going to present the competitiveness of the agro-food sector in Greece, as well as the dynamics of certain traditional Greek products in the EU market.

By examining the data of the development of Greece's foreign trade during the 1986-2007 periods, we can recognize the strong deterioration of the current trade balance in general, as well as the resistance exerted by certain conventional activities of the food sector (see Table 6). Between the years 1986 and 2007, while imports have over quadrupled, exports have almost tripled, thus deteriorating their trade balance from

€ -5.767 million to € -35.849 million (621%). In regards to agricultural products and foods, while in the beginning of this period there is a deficit of only -79 million €, in 2007 it skyrockets to -2,590 million €, displaying a nearly 33-fold (3.278%) deterioration of the trade balance.

In Diagram 4 this deterioration is shown quite explicitly. Besides the general burden, there is a fall in competitiveness even in the strong sectors of Greek agricultural economy, with the exception of the new aquaculture sector. All the remainder sectors, even the surplus ones, report a decline in their surplus, in other words they have become less competitive.

Table 6

The evolution of imports and exports of agricultural products and foods in Greece (Billions of Euros)

		1986	1990	1995	2000	2005	2007
TOTAL	Imports	11,516	15,577	19,393	30,171	44,068	53,072
	Exports	5,749	6,293	8,483	11,662	14,045	17,223
Food and Live Animals	Imports	1,711	1,982	2,632	2,910	4,005	5,006
	Exports	1,269	1,277	1,536	1,726	2,076	2,522
Live Animals	Imports	0,030	0,055	0,047	0,076	0,089	0,096
	Exports	0,001	0,001	0,001	0,001	0,003	0,005
Meat and preparations	Imports	0,576	0,687	0,732	0,748	0,963	1,021
	Exports	0,003	0,018	0,039	0,026	0,032	0,048
Dairy products and Birds' eggs	Imports	0,378	0,401	0,489	0,492	0,640	0,780
	Exports	0,023	0,054	0,105	0,120	0,177	0,259
Aquaculture Products	Imports	0,110	0,137	0,156	0,267	0,355	0,435
	Exports	0,049	0,065	0,135	0,245	0,366	0,449
Cereals and preparations	Imports	0,312	0,196	0,315	0,306	0,448	0,700
	Exports	0,300	0,168	0,165	0,122	0,233	0,250
Fruits and Vegetables	Imports	0,051	0,170	0,301	0,360	0,624	0,764
	Exports	0,825	0,904	0,984	1,087	1,083	1,306
Sugar and Honey	Imports	0,005	0,020	0,091	0,091	0,120	0,219
	Exports	0,009	0,019	0,019	0,021	0,049	0,037
Coffee, cocoa, tea and other	Imports	0,153	0,143	0,182	0,208	0,261	0,324
	Exports	0,008	0,016	0,048	0,032	0,025	0,025
Feeding stuff for Animals	Imports	0,051	0,080	0,132	0,190	0,253	0,370
	Exports	0,039	0,016	0,014	0,028	0,030	0,036
Beverages and Tobacco	Imports	0,103	0,255	0,412	0,323	0,693	0,745
	Exports	0,292	0,348	0,476	0,544	0,560	0,502
Beverages	Imports	0,049	0,169	0,221	0,279	0,397	0,415
	Exports	0,069	0,084	0,163	0,127	0,133	0,148
Tobacco	Imports	0,054	0,087	0,191	0,256	0,296	0,330
	Exports	0,223	0,264	0,313	0,417	0,427	0,354
Animal and Vegetable Oils & Fats	Imports	0,036	0,064	0,069	0,056	0,129	0,214
	Exports	0,210	0,237	0,469	0,257	0,392	0,351
Animals	Imports	0,001	0,001	0,003	0,003	0,012	0,019
	Exports	-	-	-	-	0,002	0,001
Plants	Imports	0,012	0,052	0,057	0,044	0,100	0,179
	Exports	0,208	0,236	0,468	0,254	0,389	0,331
Oil-seeds and Oleaginous Fruits	Imports	0,052	0,085	0,089	0,108	0,133	0,158
	Exports	0,043	0,003	0,024	0,032	0,052	0,051
Cotton	Imports	0,184	0,144	0,079	0,054	0,044	0,049
	Exports	0,052	0,116	0,316	0,338	0,283	0,187

Source: Hellenic Statistic Authority

With respect to the manufacturing industries of agricultural products, which demonstrate continuous development (3% annual average during the last 3 years), the data reported from the Bank of Greece also show a decrease in competitiveness. From Table 7 it can be seen that between the years of 1991 and 2006 while the export performance (the ratio between exports and production gross value) remains more or less stable, with various increases or decreases from year to year depending on the production of the primary sector (ranging from 7.5 % in 1994 to 17.1 % in 2003), the import infiltration (the ratio

between imports and apparent consumption) continuously increases (ranging from 18.2 % in 1993 to 33.8 % in 2006) showing the decline of Greek products even within the domestic market.

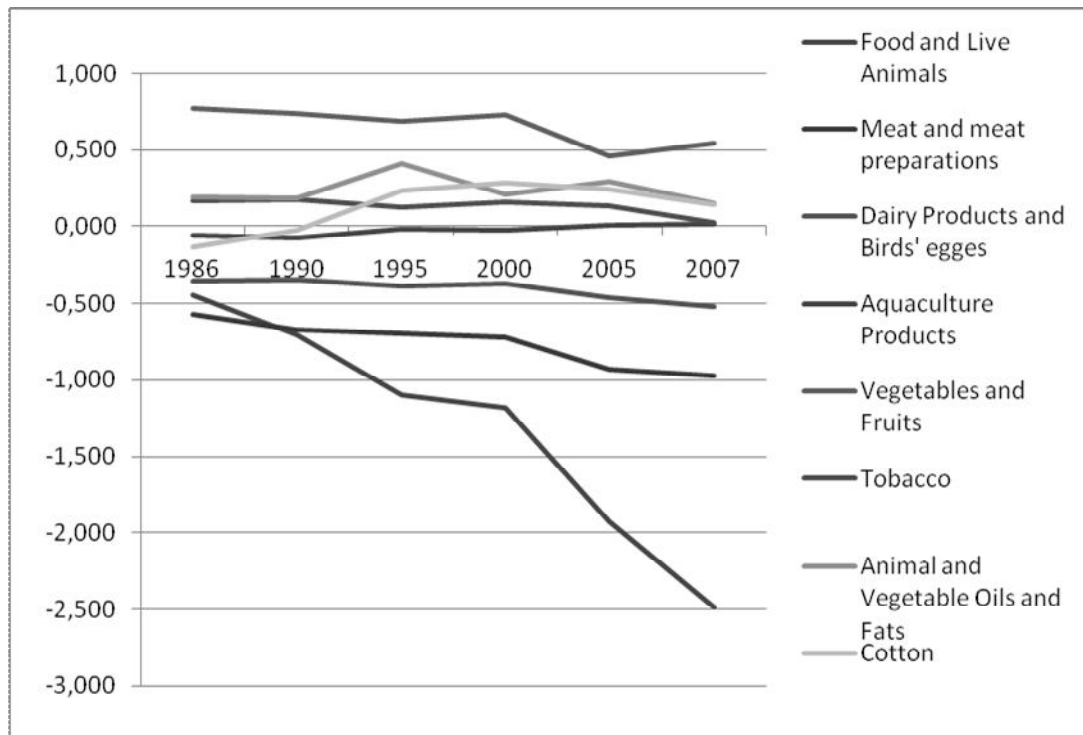


Figure 4. The Greek agro-food Trade Balance.

The decrease in competitiveness manifests the size of the problems as well as the ineffectiveness of the implemented policies. It could be argued, therefore, that the mode of the development of Greek agriculture was based on its expansion or on the inauguration of new activities, which are characterized more by the flow of income that stems from overlying activities, rather than on a result of co-operation or on the multiplicatory effects created because of the existence of interconnected and integrated activities (Badouin 1979). This mode of expansion is detrimental to the flexibility which characterizes the sound development of many small and medium-size territorial productive units, such as the agricultural ones.

The interest was focused on the expansion of the already existing crops and the existing cultivating systems without all of them having been preceded by an in-depth analysis of the conditions and the trends of international competition. But even if we consider that "the only meaningful concept of competitiveness at the national level is productivity" (Porter 1990), this does not seem to be verified in the case of Greece, because the increase in productivity being observed is one-dimensional and does not include its quality dimension. M. Porter (1990) notes that: "productivity depends on both the quantitative and qualitative features of products".

3.2. The European Market and the Competitiveness of Some Traditional Greek Agricultural Products. The EU market, one of the most important import markets of the world, constitutes a characteristic example of the contemporary dynamism of globalized foodstuff markets, where we are in a position to easily discern the dynamic of evolution of competitiveness of all products. With the implementation of the Single European Market program and the fall of the boundaries of markets existing among its M-S, there is a freedom of expansion of globalization. It becomes more and more composite with new, deeper and stronger relations with the powers of capitalism and it adopts international standards and practices of production for the satisfaction of demand. However, the malfunctions observed over the past years in the European foodstuff

system worry consumers and have contributed to their acquiring a criticizing glance and to the beginning of a control exercised on market propositions.

Table 7

Import infiltration and export performance of the sector of
foods and beverages (%)

YEAR	IMPORT INFILTRATION (1)	EXPORT PERFORMANCE (2)
1991	22.6	13.4
1993	18.2	7.7
1995	24.1	17.0
1997	24.9	15.7
1999	23.1	14.8
2001	32.5	13.1
2003	33.8	17.1
2005	33.2	15.8
2006	33.8	16.3

Source: Bank of Greece. (1): The ratio between imports and apparent consumption in current prices. (2): The ratio between exports and the production gross value in current prices.

Table 8

EU15 imports of certain agro-food products (1.000KG)

	1995	1997	1999	2001	2003	2005	2007
Feta of sheep's or buffalo milk							
EU15 EXTRA	305	163	153	143	125	42	
EU15 INTRA	10284	9960	10918	12916	15303	14972	
GREECE	6624	5729	6027	6108	6339	5631	
GREECE (%)	62.56	56.59	54.44	46.77	41.09	37.50	
Feta (excl. for processing, grated or powdered and of sheep's or buffalo milk)							
EU15 EXTRA	60	12	233	32	608	953	2809
EU15 INTRA	18697	19925	26305	32635	35232	34538	37637
GREECE	1782	4022	4425	7407	8418	10268	23455
GREECE (%)	9.50	20.17	16.67	22.67	23.49	28.93	57.99
Olive oil obtained from the fruit of the olive tree (untreated)							
EU15 EXTRA	40004	63020	65758	39515	31776	77863	86192
EU15 INTRA	226927	409733	389048	525590	584221	538735	573266
GREECE	96315	102392	162247	105394	118738	84742	65144
GREECE (%)	36.08	21.66	35.67	18.65	19.28	13.74	9.88
Olive oil and fractions obtained from the fruit of the olive tree							
EU15 EXTRA	45966	26996	42560	25777	40609	34660	23132
EU15 INTRA	32100	55368	52894	62544	73084	72458	85270
GREECE	3190	765	4661	1010	874	731	61648
GREECE (%)	4.09	0.93	4.88	1.14	0.77	0.68	56.87
Olives, prepared or preserved by vinegar or acetic acid							
EU15 EXTRA	1424	1143	1038	1229	1700	1594	1500
EU15 INTRA	3407	5757	7568	7717	9083	7718	7163
GREECE	519	1431	1738	2032	1949	1650	4840
GREECE (%)	10.74	20.74	20.20	22.71	18.07	17.72	55.87

Source: <http://fd.comext.eurostat.cec.eu.int/>

Agricultural products may respond both at a practical and a symbolic level to the requirements of the demand and by reason of their reputation they are capable of

mobilizing the European markets on a supplementary basis. In particular, local and traditional products, such as oleicultural products, viticultural products, honey, products deriving from pharmaceutical and aromatic plants, fruit produced by certain trees and cheese products, associated for years with the cultivation systems of the Mediterranean area and integrated with the area's history and culture, are easily identifiable by consumers.

Table 8 demonstrates that quality traditional products like feta cheese, olive oils and standardized olives do not encounter any competitiveness problems even in respect to the case of Greece which, in the past, had encountered problems due to the poor organization of its exports. The incapability of international circuits of fully covering the European foodstuff market, in conjunction with the existing cultivating, historical and, generally, symbolic attributes of products may constitute an opportunity for the preservation of the cultivating or general image and the multiformity of rural areas. The complexity of the market and agricultural sector allows us to consider the differentiation of local products as a part of the globalization but also as a part of the sustainability of the agro-nutritional and agricultural system, which may be competitive even within an internationalized and globalised environment.

Conclusion. The importance of the percentage of NAI to the total of farmers' income in relation to the analysis of the methods of farm businesses indicates that the professionalism of the vast majority of Greek farmers is rather limited. Furthermore, the stagnation of food demand, the productivity increase in farm labor and the opening-up of trade contribute to the decline of the active agricultural population, especially in a country like Greece, the percentage of which is high above the European average. It is, therefore, apparent that, in order to increase their income, farmers will have to search for employment opportunities elsewhere, i.e. besides traditional agriculture. However, those who will continue to be farmers will have to intensify their efforts with the condition that pluriactivity will not hinder the growth and the progress of their already existing agricultural capital.

Agricultural diversity in Greece, as in the other countries of Southern Europe, offers ample opportunities to increase AIs. They can become the large international market of diversity and variety and, with imagination and taste, to distinguish themselves from other countries which have the comparative advantage to produce standard products (Artaud, 1968). Moreover, the tradition and the landscape of these countries can become additional contributors to their agricultural and regional development.

Finally, taking into account the EU integration process of Greek agriculture, a number of issues that primarily concern the new M-S should be studied to ensure the competitiveness of the countries' traditional products in the international market, the complementarity between agricultural and nonagricultural activities and in general, all development strategies for keeping people on site, especially in less favorite areas.

References

- Artaud M., 1968 *Le métier d'agriculteur et l'agriculture nouvelle*. Ed Les Editions Ouvrières, Paris.
- Badouin R., 1979 *Économie et aménagement de l'espace rural*. Ed PUF, Paris.
- Bowler I., Ilbery B., 1997 The regional consequences for agriculture of changes to the Common Agricultural Policy. In: Laurent C., Bowler I., (eds) [CAP and The Regions. Building a Multidisciplinary Framework for the Analysis of the EU Agricultural Space], Ed INRA, 105-116.
- Briel B., Vilain L., 1999 *Vers l'agriculture durable*. Ed Educagri, Paris.
- Bryden J., Bollman R., 2000 Rural employment in industrialized countries. *Agricultural Economics* **22**:185-197.
- Costa J. A., 2005 Empowerment and exploitation: Gendered production and consumption in rural Greece. *Consumption, Markets and Culture* **8**:313-323, available at <http://dx.doi.org/10.1080/10253860500160353> (last view: 11/12/07)

- Damianakos S., 1999 The poorly identifiable model of Greek agriculture. In: Kassimis C., Louloudis L., (eds), Campaign. Greek rural society at the end of the century vingième. Ed EKKE/Plethron, Athens: 55-84.
- Damianos D., Skuras D., 1996 Farm business and the development of alternative farm enterprises: an empirical analysis in Greece. *Journal of Rural Studies* **12**:273-283.
- Dascalopoulou I., Petrou A., 2002 Utilising a farm typology to identify potential adopters of alternative farming activities in Greek agriculture. *Journal of Rural Studies* **18**:95-103.
- Demoussis M., 2003 Transformations of the CAP and the need for reorganizing agricultural policy in Greece. In Kassimis C., Stathakis G., (eds) The reform of the CAP and rural development in Southern Europe. Ed Ashgate, Aldershot, 173-185.
- Findeis J., Jensen L., Cornwell G., 1997 Rural employment alternatives: Wage work versus self-employment among rural households. In: Bollman R., Bryden J., (eds) Rural employment. An international perspective. Ed CAB International, Oxon - New York, 277-290.
- Gasson R., 1986 Part time farming. Strategy for survival? *Sociologia Ruralis*, **XXIV**:364-376.
- Harrison R., Kennedy P., 1997 A neoclassical economic and strategic management approach to evaluating global agribusiness competitiveness. *Competitiveness Review* **7**:14-25.
- Ilbery B., Chiotti Q., Rickand T., 1997 Introduction. In: Ilbery B., Chiotti Q., Rickand T., (ed.) Agricultural restructuring and sustainability. A geographical perspective, Ed CAB International, Oxon - New York, 1-9.
- Kasimis C., Papadopoulos A., 2005 The multifunctional role of migrants in the Greek countryside: Implications for the rural economy and society. *Journal of Ethnic and Migration Studies* **31**:99-127.
- Kassimis C., Papadopoulos A., Zacopoulou E., 2003 Migrants in Rural Greece. *Sociologia Ruralis* **43**:167-184.
- Krugman P., 1993 What do undergrads need to know about trade? In: Krugman P., 2000 La mondialisation n'est pas coupable. Ed La Découverte/Poche, Paris **81**:117-125. Original edition: Krugman P., 1996 [Pop internationalism]. MIT Press, Massachusetts.
- Krugman P., 1994 Competitiveness: A dangerous obsession. In: Krugman P., 2000 La mondialisation n'est pas coupable. Ed La Découverte/Poche, Paris **81**:17-36. Original edition: Krugman P., 1996 [Pop internationalism]. Ed MIT Press, Massachusetts.
- Lacombe Ph., (dir) 2002 L'agriculture à la recherche de ses futures. Ed l'aube/datar, Paris.
- Martins C., Spendlingwimmer F., 2009 Farm structure survey in Greece - 2007. Ed Eurostat. Statistics in focus **96**, available at http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-09-096/EN/KS-SF-09-096-EN.PDF
- Meyer von H., 1997 Rural employment in OECD countries: Structure and dynamics of regional labour markets. In: Bollman R., Bryden J., (eds) Rural employment. An international perspective. Ed CAB International, Oxon - New York, 3-21.
- Morgan K., 1997 The learning region: Institutions, innovation, and regional renewal. *Regional Studies* **31**:491-503.
- Morgan K., Nauwelaers C., 1999 A regional perspective to innovation: From theory to strategy. In: Morgan K., Nauwelaers C., (eds) Regional innovation studies. The challenge for less-favored regions. Ed The Stationary Office and Regional Studies Association, London.
- Mouqué D., (ed) 1999 The Social and economic situation and development of regions in the European Union. Ed European Commission, Brussels: Sixth Periodic Report. URL: eu.european.eu/regional_policy/sources/docoffic/official/report_en.htm
- Mubarik A., (ed) 2004 Report of the APO Study Meeting on Agricultural Diversification and International Competitiveness. Ed Asian Productivity Organization, Tokyo. URL: www.apo-tokyo.org

- Petropoulos D., 2007 [European Union's enlargement and the agricultural sector in Greece]. *Review of Economic Sciences* **11**:123-140. [In Greek]
- Porter M., 1990 The Competitive Advantage of Nations. *Harvard Business Review* March-April: 73-93.
- Post J., Terluin I., 1997 The changing role of agriculture in rural employment. In: Bollman R., Bryden J. (eds) *Rural employment. An international perspective*. Ed CAB International, Oxon – New York, 1997, p. 305-326.
- Purseigle F., 2009 L'engagement professionnel des jeunes agriculteurs, du concept aux représentations, available at : www.cavi.univ-paris3.fr/lexicometrica/article/numero5/lexicometrica-purseigle.pdf
- Reardon T., Berdegú J., Escobar G., 2001 Rural nonfarm employment and incomes in Latin America: Overview and policy implications. *World Development* **29**:395-409.
- Vernicos N., 1975 The economy of Greece 1950-1970. In Vergopoulos K., 1975 [The agricultural issue in Greece] (Το αγροτικό ζήτημα στην Ελλάδα). Ed Exantas, Athens, 19. [In Greek]
- Walker G., 1997 Sustainable agriculture and its social geographic context in Ontario. In Ilbery B., Chiotti Q., Rickand T., (eds) *Agricultural restructuring and sustainability. A geographical perspective*. Ed CAB International, Oxon - New York, 313-328.
- White Paper, 1993 Growth, Competitiveness, Employment: The Challenges and Ways Forward into the 21st Century. Ed European Commission **93**.

Received: 12 March 2010. Accepted: 30 July 2010. Published online: 30 July 2010.

Author:

Athanassios Papageorgiou, Technological Educational Institute of Kalamata, Faculty of Agricultural Technology, Department of Crop Production, Antikalamos, 24100 Kalamata, Greece. Email: ath.papageorgiou@teikal.gr or diatha@ath.forthner.gr

How to cite this article:

Papageorgiou A., 2010 The development, the present situation and the prospects of Greek agriculture. *AAB Bioflux* **2**(2):133-150.

The paper was presented in the programme of: ENLARGEMENT OF THE EUROPEAN UNION AND THE AGRICULTURE OF THE CENTRAL AND EASTERN EUROPEAN COUNTRIES (Gembloux, 9-11 March 2010).