

INTRODUCTION

The existence of the wild olive tree can be traced back in prehistoric times. Both the olive tree and its products, mainly olive oil and table olives, have since long penetrated every aspect of life in the Mediterranean region. It is no wonder that the olive tree and its products are valuable to the Mediterranean people: First, they are among the cornerstones of their diet, which, interestingly, is a diet that has been found to support a healthy lifestyle. Second, since ancient times they have provided a source of economic wealth and employment in otherwise poor and less-endowed areas. Third, the olive plantations cover more than 7.8 hectares in the Mediterranean basin and form a cultivated Mediterranean “forest”. Apart from its diet, health, and income benefits, this forest plays a vital role in environmental protection.

In the limited time of my presentation/speech I will focus on olive oil only: I will try to illustrate the main aspects of the current situation and expand on factors that will most probably affect the future of this valuable product.

To do this, I will structure my speech around 4 themes: Supply, Demand, International trade and the EU policy.

PRODUCTION AND SUPPLY

First of all, the share of olive oil in the global vegetable oils market is something less than 3.5% (data according to 2006).

The olive tree is a permanent cultivation. In some areas the trees have been there for hundreds of years! Yields are not consistent every the year, appearing a biennial phase so the validity of any statistical analysis is increased if we examine average yields of four-year-periods.

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As you can see during the last 20 years world production increased by 1.2 million tons. This is a massive increase, of 70%, which gives an annual growth rate of about 2.7 percent.

The EU countries, which account of about 80% of global production, showed a somewhat smaller annual growth rate of 2.5 percent. Most of this growth is driven by Spain, which had an annual growth rate of 4.5 percent, despite large fluctuations in yearly production in some dry years.

Outside the EU, the 4 largest producing countries are Tunisia, Morocco, Syria, and Turkey. Those countries account for 15% percent of global production and their production had an average annual growth rate of 3.5% - among these countries, Syria exhibited the highest growth rate, which was 8.5 percent.

The remaining 5% of global production is from other countries mainly outside the Mediterranean region. An increase in supply in the future could possibly come from Australia, the USA (in California), or even China. However, it is highly questionable whether the olive tree can be successfully adapted to non-Mediterranean soil-and-weather conditions. Another, related issue, is whether the cultivation of olive trees could yield incomes comparable to those that could be made if the land was put in an alternative use.

In the traditional oil olive plantation in the EU the prevailing type of holding is a small, labor intensive, family run, with limited access to capital, where income from olive growing is NOT the basic income of a family: it is an income that mainly supplements income from another source. This explains why management of olive oil plantations does not seem to be determined by strictly economic decisions.

The olive tree is a permanent cultivation, so growers' decisions **in the short run** are only marginally affected by yearly price fluctuations. The grower's short-run priority is to maximize the yields of his/her trees (that is, to maximize the volume of production), while keeping or improving the quality. Given his volume of production, he then seeks to achieve a higher price. In other words, supply of olive oil is not really sensitive to changes in prices. For those who are familiar with the elasticity concept, the price elasticity coefficient, in the short run, is less than unity.

So much for the short run.

In the long run olive oil supply is mainly affected by three factors:

(1) First, developments in prices and subsidies. Anticipated (or actual) developments in prices and subsidies lead to decisions about investment, either in new plantations, or in regenerating/improving existing ones.

(2) Labor availability and costs. Harvesting represents thirty to fifty percent of the total cultivation costs. The gradual drop in numbers of the agricultural population in the EU countries and the continuing dwindling of the labor force have for the moment led to the wide use of economic immigrants arriving from North Africa or the Balkans.

(3) Third, and maybe the most important factor, is climate. Climate changes, the greenhouse effect, increases in average temperature, and prolonged draught can all gravely affect the level of production, even in the short term.

The World Olive Oil Production, in selected countries and groupings, during 20 crop years 1985/86-2004/05 (Quantities in '000 tonnes)						
Countries	1985/86	1989/90	1993/94	1997/98	2001/02	Annual Growth
	1988/89	1992/93	1996/97	2000/01	2004/05	Rate (%)
Spain	505.03	601.58	593.65	877.93	1.168,60	4,50
Italy	498.28	462.70	489.50	566.88	713,15	1,20
Greece	278.05	289.48	348.50	424.50	378,83	1,60
Rest of E.U.	34,47	38,44	40,48	41,32	42,20	2,50
European Union	1,315.83	1,392.20	1,472.13	1,910.63	2.302,78	2,50
Tunisia	94.50	168.75	166.25	162.00	129,25	0,20
Turkey	83.75	57.75	112.00	113.75	107,30	3,80
Syria	57.45	60.25	89.00	107.75	135,50	8,50
Morocco	35.75	47.25	57.50	52.50	63,75	1,20
The 4 Med	271.45	334.00	424.75	436,00	435,80	3,50
Rest of World	78.35	89.45	103.38	105.38	138,42	3,50
World	1,665.63	1,815.65	2,000.25	2,452.00	2.877,00	2,70

DEMAND AND CONSUMPTION

Consumption of olive oil has been confined for centuries in the olive-oil producing countries. In countries, such as the USA, consumption was mainly driven by immigrants Mediterranean origin. It is interesting to note that, in non-producing countries, olive oil was seen as a substitute of other seed oils, with demand driven entirely by their relative price ratio.

However, recently we witness an important change. The findings of the “Seven countries study” led by Professor Ancel Keys and the global promotion campaigns initiated by the International Olive Oil Council, helped the medical world and nutritionists acknowledge the health benefits of Mediterranean nutrition.

Virgin olive oil is a typical example of a "natural" functional food and its beneficial role in health as an integral ingredient of Mediterranean diet is universally recognized.

The health effects of olive oil are attributed to its fatty acid composition and the presence of bioactive ingredients such as:

- Powerful antioxidants such as polar phenols (hydroxytyrosol and its derivatives, phenolic acids, lignans, flavonoids and others)
- Squalene, a chemopreventive compound
- The ibuprofen-like active compound oleocanthal
- α -tocopherol
- Others.

Most of these compounds, as shown by biochemical and other laboratory and clinical studies, are related to beneficial effects observed in relation to the development of arteriosclerosis and some forms of cancer as well as to an anti-inflammatory and antimicrobial activity.

As a result, olive oil has started gradually to acquire a separate identity, and to be considered different from other oils and fats and therefore started to penetrate new markets, besides the traditional Mediterranean ones.

During the last 20 years, demand begins to appear from countries, which were not previously consuming olive oil (nor producing it). These countries have increased their consumption by an impressive average annual growth rate of 9 percent. This tendency is still in force and new opportunities are emerging from markets such as Russia, China, and India etc.

Of course, an increase in demand is difficult to come from countries, which have traditionally been consuming large quantities of olive oil. The average Greek, for example consumes 25kg per year; the average Italian or Spaniard 12.5 kg. In these countries, the rate of increase in the per capita consumption is hardly 1.7%.

Apart from the increase in demand driven by the health benefits of olive oil, olive-oil consumers are now more sophisticated. This, coupled with advances in cultivation and the oil-mill technology, triggered a move towards substitution of generic olive oil with extra virgin olive oil, which is produced with natural and mechanical means and has superior chemical and organoleptic properties.

This trend has also allowed the development of some market niches. Examples of such niches are

- (1) Organic olive oil
- (2) Olive oil coming from specific regions. These are labelled as "Protected Designation of Origin or Geographical Indication, according to E.U. regulations.
- (3) Olive oil with distinct characteristics. For example, olive oil extracted from specific varieties, or olive oil produced with the use of Integrated Crop Management etc

So, what can we expect about the future of olive oil?

It is reasonable to expect that the trend of increase in demand will hold, backed by the increasing health awareness and increasing sophistication of the global consumer. However, there are two potential inhibitors to this trend.

First of all, the market prices will play a major role. For example last year's drought in Spain led to price increases – and global consumption fell by 20%.

Secondly, increasing health consciousness might be offset by changes in dietary habits. Functional foods, dietary supplements, the reduction of the time allocated for preparation of food at home, the reduction of meals taken in family gatherings could all make obsolete the Mediterranean diet and olive oil.

Changes in World consumption during 20 crop years (1985/86 -2004/05) in selected countries and groupings (Quantities in 1000 tonnes)						
Selected countries and groupings	Average 1985/86 - 1988/89	Average 2001/02 - 2004/05	Change tn %		Annual Growth Rate (%)	World Share (%)
Main E.U. producers (Italy+Spain+ Greece+Portugal)	1.283,10	1.735,80	452,70	35,30%	1,7%	62,6%
The 4 Med (Syria+Turkey+ Morocco+Tunisia)	194,60	274,10	79,5	40,90%	1,9%	9,9%
Main producers	1.477,70	2.009,90	532,20	36,00%	1,7%	72,5%
Rest of E.U.(Northern)	38,70	236,50	197,8	511,10%	10,1%	8,5%
The 5 new (USA+Canada+ Australia+Japan+Brazil)	85,70	314,30	228,6	266,70%	8,4%	11,3%
The non producers	124,40	550,80	426,40	342,80%	9,1%	19,8%
Rest of the World	171,00	211,90	40,9	23,90%	1,3%	7,6%
World	1.773,10	2.772,60	999,50	56,40%	2,6%	100,00%

PRICES

Market prices may reflect both demand- and supply-side conditions. Here are some interesting facts.

- Fluctuations in yields usually lead to fluctuations in prices. For example, drought in Spain in 1995 and 2004, frost in Greece and Italy (1990/1, 1995/6) have all been associated with price increases.
- However, increases in imports usually help soften the effect of unexpectedly low yields on prices.
- Italy gets the highest producer prices (~20 percent higher compared to Greece and Spain).
- Producer prices exhibit large variations and also depend upon qualitative characteristics of the product. Some extra virgin olive oils (e.g. extra virgin with exceptional taste and early harvesting) can get up to 50% more than a normal extra olive oil, which, in turn, can get up to 35% more than an inferior olive oil (this is called 'lampante')
- Consumer prices depend on the type of olive oil. There are two broad classes of products here:
 - (1) Simple extra virgin olive oil, which is marketed by large companies, is sold at about 5 euros per liter. These are mixtures of different origins and varieties.
 - (2) Special quality extra virgin olive oil can be sold as much as 40-50 euros per litre. These olive oils have a distinct characteristic, e.g. they are organic, or they come from a specific region (Protected Designation of Origin – just as in wine), or Integrated Crop Management, or may have other distinct characteristics.

THE WORLD TRADE

For analytic purposes, there are two groups of countries:

The first group consists of the main producing and consuming EU countries. However, even among this group there are striking differences.

Spain is the unquestionable leader of the world production (more than 40%) and can be seen as the leader of the olive oil world trade as well. Owing to fluctuations in its own production, Spain imports around 40 thousand tons of raw material (olive oil) from third countries (such as Tunisia) and from Greece. On the other hand, Spain exports 220 thousand tons to Italy, which makes Spain the large player in the Italian domestic market. Regarding the final product, Spain focuses in exports of small

bottles (that is, less than one liter). Spain's exports in final product both to EU and non-EU countries, amount to more than 220 thousand tons.

There are two points worth noting about Spain. First, the supply of raw material is concentrated in the hands of the agricultural cooperatives, which thus command strong negotiating power. Secondly, Spain has initiated a wave of acquisitions of traditional long-established Italian companies and brands (Minerva, Carapelli, Sasso, Dante, Friol).

Italy is the crossroad of world olive oil trade and capitalizes on the good marketing skills of the early 19th century oil companies. Italy is a net importer of around 450 thousand tons raw material from Spain, Greece, and non-EU countries. Italian exports are about 240 million tons of bottled olive oil in small packages.

Greece is a pure exporter. Greece has zero imports and around 90 million tons of exports of raw material, which is mainly of extra virgin quality. This goes to the Italian companies for further processing and packaging. Greece is no marketing champion: exports of final products are less than 15 million tons.

The second group comprises the non-EU Mediterranean countries. These countries are clearly export orientated. Bulk olive oil is transported to the Italian – and Spanish, to a lesser extent – packaging industry while some minor quantities are exported in small packages directly to the USA etc.

The high tariffs imposed by the EU on imports from this group of countries are not really actual trade barriers. This is so for two reasons. First of all, there is a preferential agreement with Tunisia, covering a quantity of 56,700 tons. Secondly, there is an agreement called "inward processing traffic". That is, no tariff is levied on imported quantities if they will be processed in some way (for example if they are refined, bottled, etc) and then mixed with EU olive oil and then exported.

Speculating about the future much will follow the trend....

As far as concerns the future it is evident the tendency towards the liberalization of the markets within the framework of WTO agreements and more specifically between EU and other Mediterranean countries after 2010.

E.U.

As I pointed out previously, almost 80% of global olive oil production is concentrated within the EU. Therefore, interventions by the EU, through its Common Agricultural Policy, may have a dramatic impact on the global supply of olive oil.

The new philosophy of the "decoupling", in other words that the producer would receive a fixed subsidy which is fully disconnected from his actual volume of

production, raises more issues than it is supposed to solve. It is questionable, for example, whether it will lead to the restructuring or to the abandonment of marginal plantations. In any way it will favour the most competitive agricultural holdings. We'll see...

CONCLUSIONS

To conclude, the olive tree creates the "Mediterranean forest", an irreplaceable source of agricultural income, healthy diet, and environmental protection.

The most important, to my opinion forces that will challenge the increasing trend in demand and supply of olive oil are the following:

- a) The abandonment of the traditional way of cooking and eating, and the extensive use of pre-prepared food, convenience foods, and dietary supplements.
- b) An over-supply caused by the expansion of intensive plantations, especially in the new countries.
- c) The greenhouse effect, long droughts and other climatic changes.