Table Olives & Olive Oil in USA

Market Analysis & Consumer Trends

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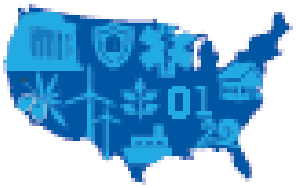

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At a Glance

The United States of America (USA) is a newly producing country of table olives and olive oil with rising domestic production levels since 2000. However the olive fruit is extremely sensitive to the cold and requires mild climate conditions for its cultivation, a factor which will remain an insurmountable and limiting obstacle to expanding domestic production, in its effort to satisfy rising domestic demand amongst consumers. California is the only state which has a favorable climate suitable for the cultivation of the olive fruit, but with persisting relative high production costs, limited acres of land for cultivation and lack of governmental support, domestic productions accounts for only 0.3% of global production levels and is not expected to rise significantly.

Today the USA remains a net importer (the second largest globally after Italy) for table olives and olive oil from the major producing countries of the Mediterranean basin. Specifically, the US imports 97% of total olive oil consumption mainly from Italy (48% of the importing market in 2014), Spain Greece and other major producing countries such as Tunisia (3rd) and Morocco (5th) and only produces domestically the remaining 3%.

For table olives the leader in the US importing market is Spain, leaving Greece in second place and Italy in fourth position. Morocco and Turkey are also found amongst the top 5 exporting countries for table olives. This balance of prevalence between the major producers is accomplished by market specialization and differentiation which encourages the producers to focus on the export of different types of table olives and olive oil respectively. Spain for example mainly exports highly processed, green olives (either stuffed or sliced), while Morocco exports non-green olives to the US market.

Multiple factors contribute to explaining the rise in consumer demand, amongst which is the increased awareness of its health benefits as a result of research, in combination with the tendency to adopt a healthy lifestyle and eating habits. The recent economic recession and political uncertainty, particularly in 2012 (the year of the US elections) has encouraged US citizens to cook more often in their households and to limits unnecessary expenses. This however could also be a drawback for olive oil consumption, because it is often considered a specialty food or even a delicatessen amongst US citizens and is accompanied by a high price. Finally globalization (the increased tendency to travel and discover other countries and their culture) and migration effects also contribute to this tendency. By examining the online trends is crucial to understand consumer behavior, this conclusion is confirmed.

The export procedure may be extensive and complex, (for example finding an importer, broker or registering with the federal agency of Food & Drug Administration (FDA)) a discouraging factor when examining to enter or expand in the US Food and Beverage market. However the US markets and its sub-markets present unforeseen vast opportunities for expansion and growth always leaving the producer with new possibilities to discover.

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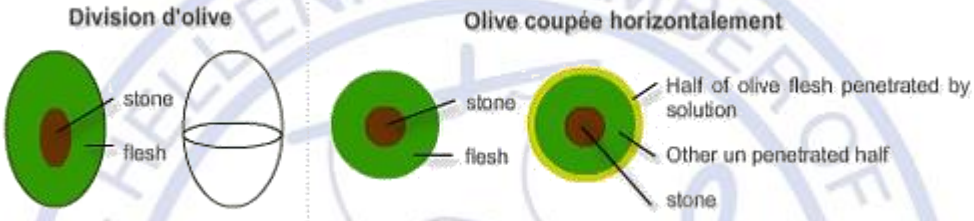
Chapter 1 | About

1.1. Table Olives & Olive Oil

Table Olives

The olive fruit is a drupe, according to the International Olive Council (IOC). The Webster Dictionary defines the olive as any fruit consisting of pulpy, coriaceous or fibrous exocarp without valves containing a nut or stone with a kernel.



Source: International Olive Council

Regarding its characteristics, the olive fruit, has a bitter component (oleuropein), and a low sugar content (2.6-6%) as compared to other fruits defined as "drupes" which have 12% sugar content or more. The time/period of its cultivation is yearlong. The various fruit varieties reflect the high/low oil content (12-30%).

The above explained characteristics make the olive, a fruit that cannot be directly consumed from the tree. The olive fruit, in order to be eligible for consumption, must undergo under a series of processes depending on its variety, which differ considerably from region to region. Of course, there are some exceptions to this general rule. More precisely, the olive fruit that remains longer than expected on the tree, gets more ripen and as a result becomes sweeter right on the tree, in most cases this is due to fermentation.

Table olives are classified by the IOC into three groups according to the degree of ripeness achieved before harvesting.

Green Olives

"Green-ripe" olives are those that have not been oxidized in processing, which range in color from yellow-green or other greenish casts and may be mottled (AMS, USDA).

They are picked when they have obtained full size, but before the ripening cycle has begun. Usually are characterized by their green to yellow shade.

Green olives are obtained from olives harvested during the ripening cycle when they have reached normal size, but prior to color change. Color change should not have begun. Green olives are processed in two principal ways: with fermentation (Spanish type) and without fermentation (Picholine or American type).

Spanish or Sevillian style

Spanish-style green olives are packed in brine and are fermented and cured. (AMS, USDA). The olives are treated in a diluted lye solution (sodium hydroxide) to eliminate and transform the oleuropein and sugars, to form organic acids that aid in subsequent fermentation, and to increase the permeability of the fruit (International Olive Council).

Picholine style

Olives belonging to the Picholine variety from Languedoc and Lucques in southern France are prepared in this manner, as are other varieties from Morocco and Algeria. The bitterness of the olives is removed by treating them in a 3-3.5° B lye solution in which they are left for 8 to 72 hours until the lye has penetrated three-quarters of the way through the flesh (ibid.).

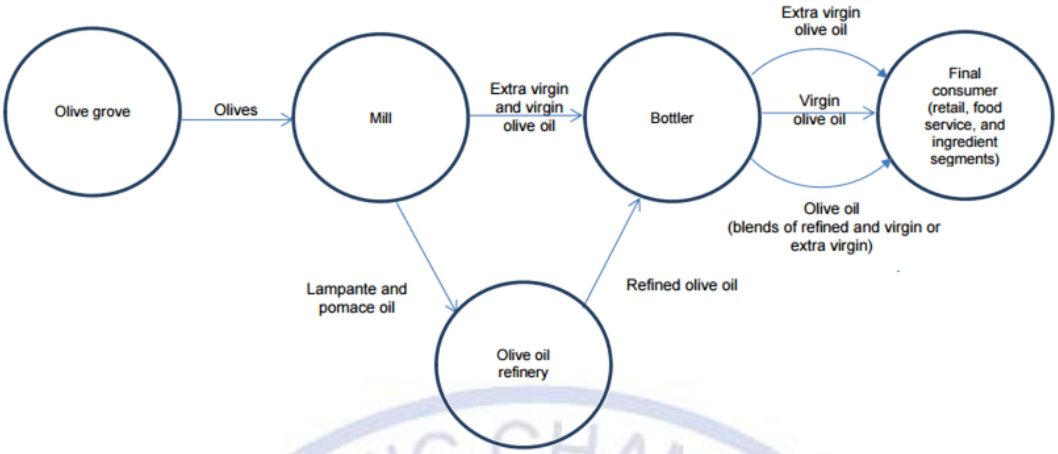
Semi-ripe or Turning Color Olives

Picked at the beginning of the ripening cycle, when the color has begun to change from green to multi-color shades of red to brown. Only the skin is colored as the flesh of the fruit lacks pigmentation at this stage, unlike that of ripe olives.

Black Olives or Ripe Olives

"Ripe" olives are those that have been treated and oxidized in processing to produce a typical dark brown to black color. (AMS, USDA) Picked at full maturity when fully ripe and found in assorted shades of purple to brown to black (ibid.).

Processing Olives into Olive Oil



Source: United States International Trade Commission

Olive Oil

Olive oil is a fat that comes from the Olive fruit (Olea europaea) which belongs to the Oleaceae family. Traditionally the olive tree grows in the Mediterranean basin; Spain, Italy, Portugal and Greece being the major producers and exporters on a worldwide scale. Native to Asia Minor the olive tree (one of the world's oldest cultivating trees) was growing even before the written language was invented and was spread to the Mediterranean basin approximately 6000 years ago where the largest worldwide producers are situated still today.

The olive branch has remained since ancient times a symbol of life and peace as well as hope and reconstruction. In Ancient Greek mythology, the Goddess Athena after which Athens was named brought the olive to the Greeks as a gift which became one of her most recognized symbols. (Olive Oil Source, 2015).

In the USA the olive tree was first cultivated in Southern California and still today California has some of the oldest olive trees or fragments of an old grove exist. The land however is too expensive to cultivate and process olive oil because it has a significantly less competitive position compared to that of the dominating European exporting markets.

Margarine/Butter Substitution

Margarine/Butter	Olive Oil
1 Teaspoon	3/4 Teaspoon
1 Tablespoon	2 & 1/4 Teaspoons
1/4 Cup	3 Tablespoons
1/3 Cup	1/4 Cup
1/2 Cup	1/4 Cup + 2 Tbsp.
2/3 Cup	1/2 Cup
3/4 Cup	1/2 Cup + 1 Tbsp.
1 Cup	3/4 Cup

Source: North American Olive Oil Association (NAOOA)

Amongst its common uses olive oil is a common cooking ingredient which adds flavor to food. Additionally olive oil has many health benefits for the skin, heart and hair and an increasing number of benefits are revealed everyday as a result of research according to the North American Olive Oil Association (NAOOA). Other common uses of olive oil include cosmetics, soaps, pharmaceuticals and as fuel in oil lamps.

On average US citizens consume less olive oil per capita in comparison to Europeans which have the highest consumption levels per capita as a result of the Mediterranean diet. Olive oil is often used as a healthier substitute for margarine or butter in cooking. The table on the right makes an analogy of the quantities in which olive oil can be substituted from butter or margarine respectively.

Key law effective from January 2009 in California requires that olive oil sold in the State must be labeled according to International Olive Oil standards. The average Greek consumes 20 liters a year in contrast to the US where consumption is much lower even though it has been increasing over the past decades.

The International Olive Oil Council (IOC) which has 17 members including the EU has a United Nations charter to develop criteria for olive oil quality and purity standards, aiming to assist international olive oil trade and consumer awareness. According to the IOC, amongst the hundreds of different varieties of olive oil, the three most common types of olive oil which are sold and fit for consumption in the United States of America (USA) are Extra Virgin Olive Oil, Olive Oil and Light-Testing Olive Oil, their main difference being in the flavor and they are described below and graded according to its level of acidity.

Note that the since 2014, the US has stricter olive oil standards set by the Olive Oil Commission of California, compared to the standards set by the IOC. Amongst the most important difference are the lower acidity levels for extra virgin olive oil, compared to that set of the International Olive Council.

Extra Virgin Olive Oil

According to the International Olive Oil Council (IOOC) extra virgin olive oil has a free acidity, expressed as oleic acid, of not more than 0.8 grams per 100 grams (International Olive Oil Council (IOOC)). In the US this rate is set at 0.5%, according to the Olive Oil Commission of California.

Extra virgin olive oil is considered the healthiest type with the strongest flavor. Accounting for about 60% of the total sold in retail and is found in a broad range of flavors which are unlimited because suppliers tend to blend multiple variations of extra virgin oils to achieve a unique flavor each time. It has a subtle flavor which and it provides a special blend, the end result might be smooth and subtle, peppery and pungent or anything in between. This type of olive oil is usually consumed "cold" or "raw" in salads as toppings.

Virgin Olive Oil

Virgin olive oil which has a free acidity, expressed as oleic acid, of not more than 2 grams per 100 grams (ibid.).This type of oil is everyday cooking oil and adaptable to many cooking methods. Coats food instead of absorbing them Virgin olive oil has not undergone any treatment other than washing, decantation, centrifugation and filtration.

Ordinary virgin olive oil: virgin olive oil which has a free acidity, expressed as oleic acid, of not more than 3.3 grams per 100 grams (ibid.), this type of olive oil however is not fit for consumption and therefore is used for technical use or for refining.

Light-testing Olive Oil

This type of olive oil is used when the flavor of the dish being prepared does not want to be influenced.

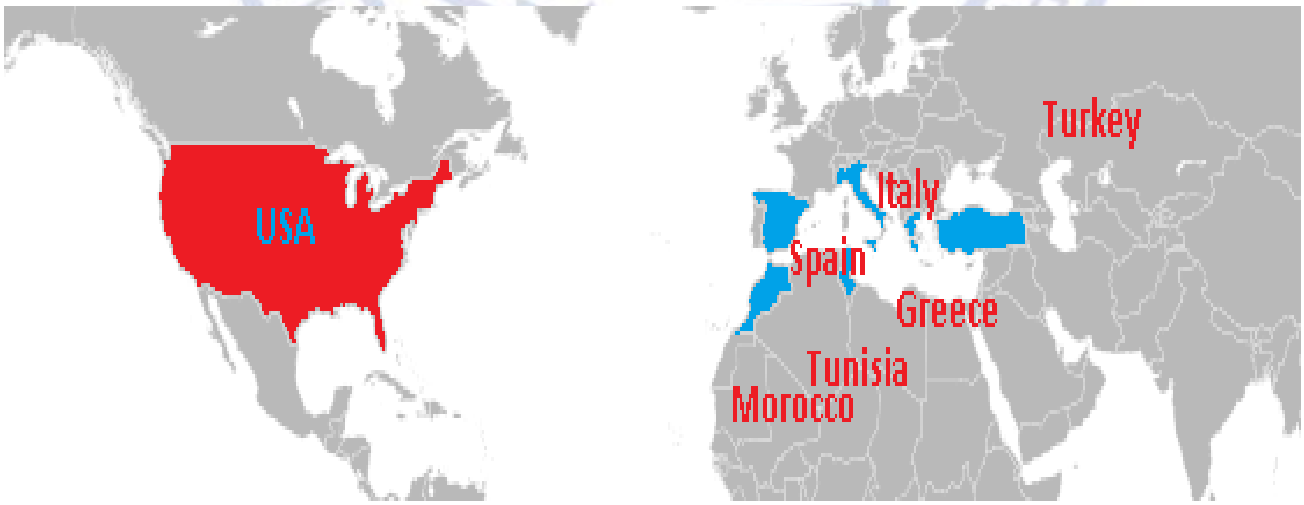
1.2. Harmonizing Codes (HS Codes) for Table Olives & Olive Oil

The tables below present the individual HS Codes for table olives and olive oil respectively and their sub-codes as defined by the International Trade Center (ITC) and analyzed in this report.

Major Exporting Countries: Spain, Greece, Morocco, Italy, Turkey	
HS Code	**Product Label**
2005.70	**Olives**
2005.70.02	**In a saline solution**
2005.70.02	Green in color:
2005.70.02	Not pitted:
2005.70.02	Ripe, in containers each holding less than 13 kg, drained weight:
2005.70.02	In an aggregate quantity not to exceed 730 metric tons entered in any calendar year
2005.70.0230	In containers each holding more than 8 kg, drained weight
2005.70.0260	In containers each holding 8 kg or less, drained weight
2005.70.04	**Other:**
2005.70.0430	In containers each holding more than 8 kg, drained weight
2005.70.0460	In containers each holding 8 kg or less, drained weight
2005.70.0600	Other:
2005.70.0600	In containers each holding more than 8 kg, drained weight, certified by the importer to be used for repacking or sale as green olives:
2005.70.0600	Described in additional U.S. note 4 to this chapter and entered pursuant to its provisions
2005.70.0800	Other
2005.70.1200	Other
2005.70.1600	Pitted or stuffed:
2005.70.1600	Place packed:
2005.70.1600	Stuffed, in containers each holding not more than 1 kg, drained weight:
2005.70.1600	In an aggregate quantity not to exceed 2,700 metric tons in any calendar year
2005.70.1800	Other
2005.70.2300	Other
2005.70.25	**Other**
2005.70.2510	In containers each holding more than 8 kg, drained weight:
2005.70.2510	Wholepitted
2005.70.2520	Wholestuffed
2005.70.2530	Other, including broken, sliced or salad style
2005.70.2540	In containers each holding 8 kg or less, drained weight:
2005.70.2540	Wholepitted
2005.70.2550	Wholestuffed
2005.70.2560	Other, including broken, sliced or salad style
2005.70.50	**Not green in color:**
2005.70.50	Canned:
2005.70.50	Notpitted
2005.70.5030	In containers each holding more than 0.3 kg, drained weight
2005.70.5060	In containers each holding 0.3 kg or less, drained weight
2005.70.60	**Other**
2005.70.6020	Wholepitted:
2005.70.6020	In containers each holding more than 0.3 kg, drained weight
2005.70.6030	In containers each holding 0.3 kg or less, drained weight
2005.70.6050	Sliced
2005.70.6060	Chopped or minced
2005.70.6070	Other, including wedged or broken
2005.70.7000	Other than canned:
2005.70.7000	In airtight containers of glass or metal
Source: International Trade Center (ITC)	

HS Code	Product Label	Major Exporting Countries
1509	Olive oil and its fractions, whether or not refined, but not chemically modified	Spain, Greece, Morocco, Italy, Turkey
1509.10	**Virgin:**	
1509.10.20	Weighing with the immediate container under 18 kg	
1509.10.2015	Certified Organic	
1509.10.2025	Other	
1509.10.40	Other:	
1509.10.4015	Certified Organic	
1509.10.4025	Other	
1509.90	**Other:**	
1509.90.2000	Weighing with the immediate container under 18 kg	
1509.90.4000	Other	
1510.00	**Other oils and their fractions, obtained solely from olives, whether or not refined, but not chemically modified, including blends of these oils and fractions with oils or fractions of heading 1509**	
1510.00.2000	Rendered unfit for use as food	
1510.00.4000	Other:	
1510.00.4000	Weighing with the immediate container under 18 kg	
1510.00.6000	Other	
Source: International Trade Center (ITC)		

Major Exporting Countries to the US for the Table Olives and Olive Oil



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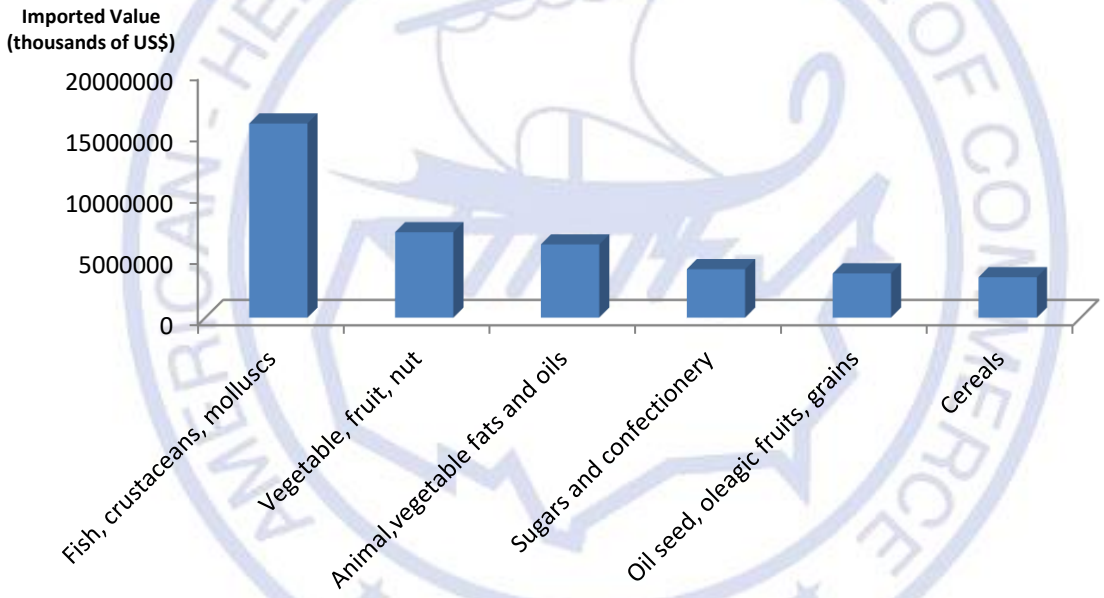
Chapter 2 | International Competitive Landscape

2.1. Overview

Both the olive fruit and olive oil in its processed form have been highly imported products in the US market for the past decades. The figure 1 summarizes some of the most highly imported goods within the food industry (in monetary terms) to the US market from the world and compares the imported values of olive oil and table olives according to data presented by the International Trade Center (ITC) for 2014.

Crustaceans, Molluscs and fish are the most highly imported category of food products to the US with a total imported value triple to the second category in value that of vegetable, fruit and nut. Table olives belong to category 20 labeled as "Vegetable, fruit, nut, etc. food preparations" while olive oil to the category "Animal, vegetable fats, oil, cleavage products etc." with third greater imported value.

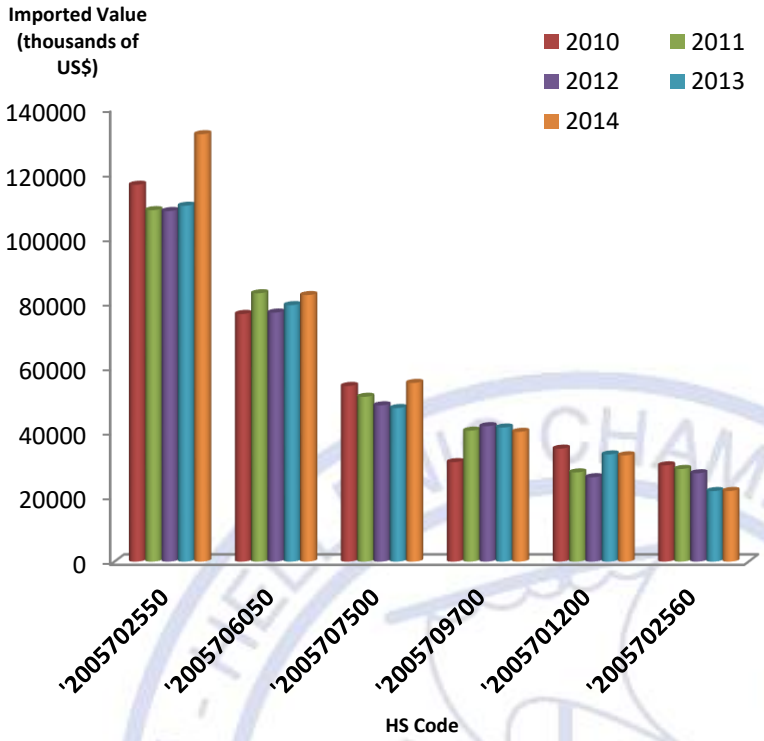
Figure 1 | USA World Imports of the Food Sector (2014)



Source: International Trade Center (ITC)

An overview of the bilateral trends between USA and the rest of the world for table olives and olive oil is presented in Figures 2, 3, 4A and B respectively for the examined period 2010 – 2014.

Figure 2 | Imported Value of Table Olives USA 2010 – 2014



HS Code	Product Label
2005702550	OLIVES, GREEN, WHOLE, STUFFED, CONTAINER LESS THAN 8 KG, IN SALINE SOLUTION, NOT FROZEN
2005706050	OLIVES, NOT GREEN IN COLOR, SLICED, CANNED IN A SALINE SOLUTION, NOT FROZEN
2005707500	OLIVES, NOT GREEN IN COLOR, NOT CANNED, IN SALINE SOLUTION, NOT FROZEN, NESOI
2005709700	OTHER VEGETABLES, OTHERWISE PREPARED OR PRESERVE THAN BY VINEGAR OR ACETIC ACID, NOT FROZEN, NESOI
2005701200	OLIVES, GREEN, NOT PITTED, IN SALINE SOLUTION, NESOI, NOT FROZEN
2005702560	OLIVES, GREEN, BROKEN, SLICED OR SALAD STYLE, CONTAINERS HOLDING LESS THAN 8 KG, IN A SALINE SOLUTION, NOT FROZEN

Source: International Trade Center (ITC)

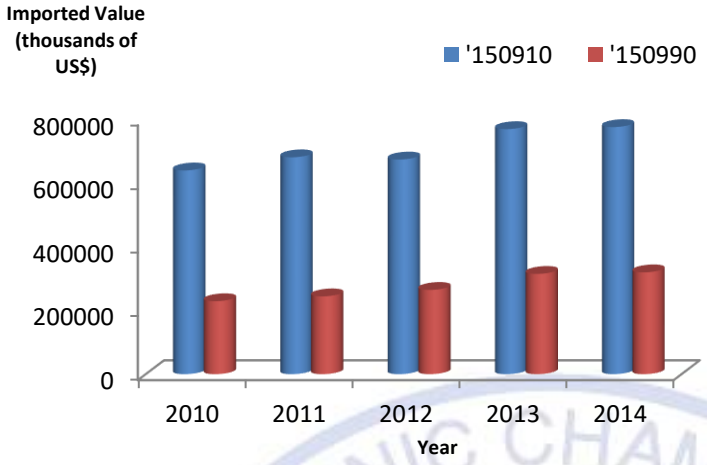
Source: Trade USA- US CENSUS BUREAU – UN COMTRADE

Figure 2, presents the form of the table olive market in its entirety and indicates that there are a number of different types of table olives which are imported into the US domestic market in significant quantities and are popular amongst US consumers.

The whole green and stuffed olives sold in small containers less than 8kg have the highest imported value between 2010 and 2014. Olives not green in color, sliced and canned or not canned are other varieties with high demand in the US market within the same product category.

Overall, there is a clear preference for the different varieties of virgin olive oil compared to that of the non-virgin varieties. The data from the ITC is presented below in Figure 3, according to which virgin olive oil has an imported value of three times higher than that of the non-virgin varieties. This clearly supports the presence of a high quality product which is becoming increasingly recognized for its health benefits.

Figure 3 | Imported Value of Virgin Olive Oil vs. Regular Olive Oil



HS Code	Product Label
150910	Olive oil, virgin
150990	Olive oil and its fractions refined but not chemically modified

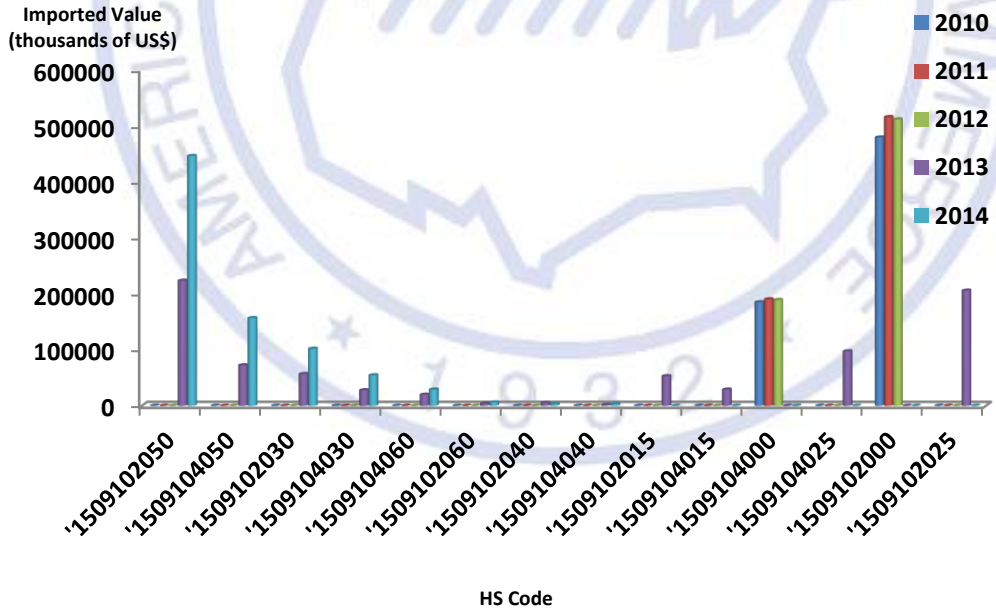
Source: International Trade Center (ITC)

Source: Trade USA- US CENSUS BUREAU – UN COMTRADE

The analysis of the oil market in the forthcoming sections is thus based to a large extent, on the trade patterns for virgin oil-olive.

Figure 4A presents a complete overview the imported values of the different varieties of virgin olive oil which are available in the US market.

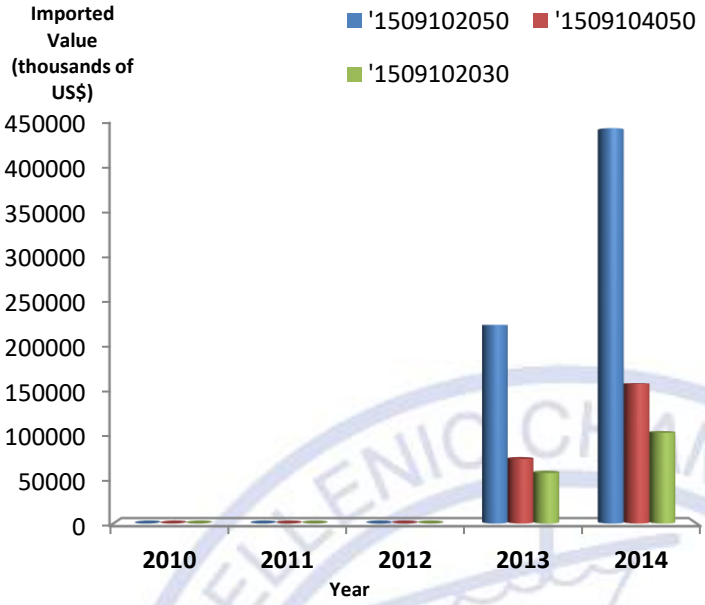
Figure 4A | Imported Value of Virgin Olive Oil and its Fractions USA 2010 – 2014



Source: Trade USA- US CENSUS BUREAU – UN COMTRADE

For the period 2010 – 2014 the most popular variety of olive oil amongst US consumers is virgin olive oil which is not chemically modified and is sold in retail in small containers of less than 18kg. This sub-code is analyzed below along with the next two most highly imported HS Codes.

Figure 4B | Top-Three Imported HS Codes for Olive Oil



HS Code	Product Label
1509102050	Olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container under 18kg
1509102030	Certified organic olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container under 18kg
1509104050	Olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container 18 kg or over

Source: International Trade Center (ITC)

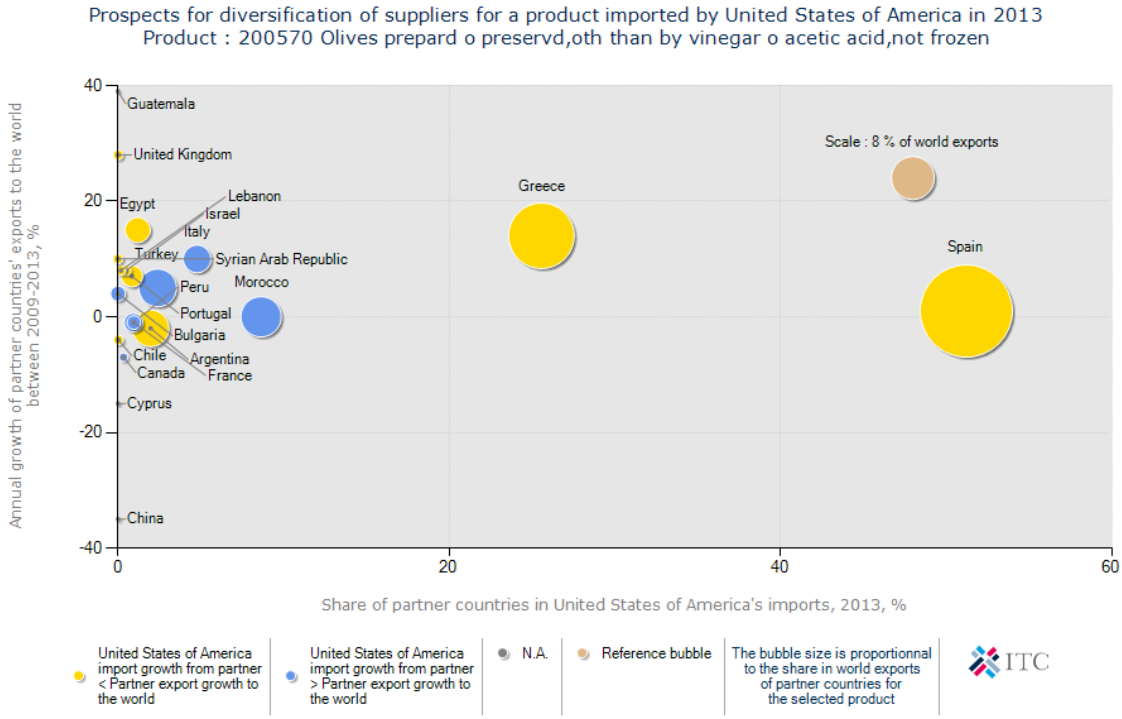
Source: Trade USA- US CENSUS BUREAU – UN COMTRADE

Figure 4B illustrates the bilateral trade pattern for the top-three most popular HS Codes in the olive oil market for the respective years. **Virgin olive oil** and **extra virgin olive oil** respectively sold in small containers **dominate the market**. It is interesting to note a relatively important increase in the imported value of organic olive oil between 2013 and 2014 and furthermore in comparison to the previous years during which the organic products had relatively insignificant imported values, something that supports the view that the global organic market is growing and with it the adoption of natural fertilizers and chemical-free processes that respect the final crop and the environment as a whole (Greek agriculture – a traditional Greek sector).

The diversification of suppliers for table olives is graphically presented in figure 5. The pattern indicates the dominant presence of the Mediterranean countries in the US importing market for both products.

For the olive fruit the suppliers of the US market are diverse whose leading players are Spain, Greece and Morocco. Together they supply a significant percentage of the total imported market in order to satisfy the domestic demand according to the data presented below as stated by the International Trade Center for 2013.

Figure 5 | Diversification of Suppliers for Table Olives (HS Code 2200570)



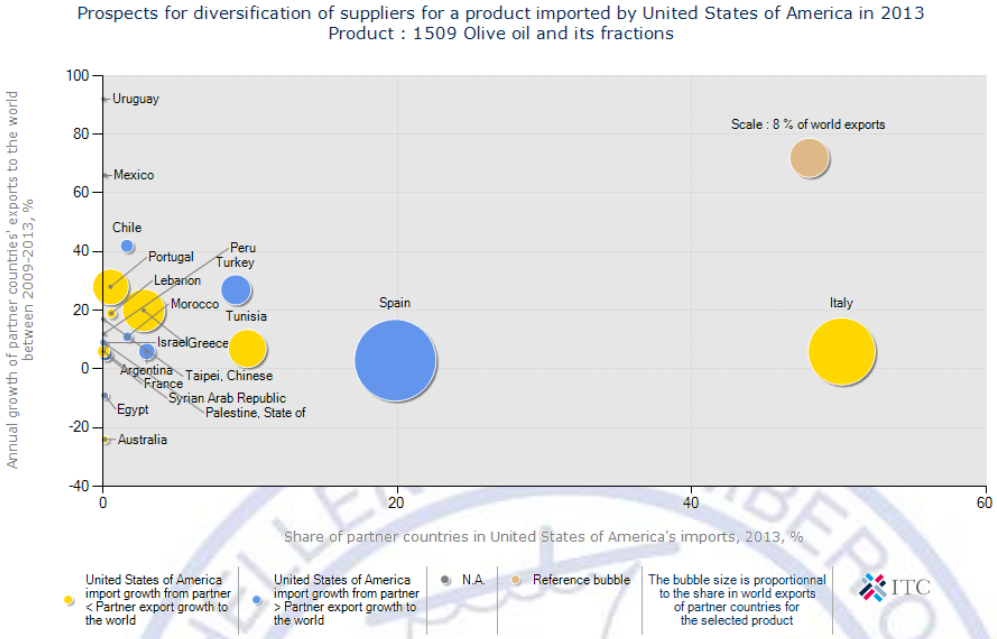
Source: International Trade Center (ITC)

Spain is beyond question the most important exporter of table olives to the US market, whose most noteworthy competitor is Greece. A possible explanation of the competitive advantage that Spain presents over Greece is in the difference between the demographic characteristics of the two countries. The population of Spain is approximately four times that of Greece which also has an ageing population and therefore a diminishing labor force to cultivate the land.

The olive oil is a by-product of olives, since it requires processing before it is considered suitable for consumption; the US importing market has a slightly different structure.

Overall, the same countries are at play with Italy and Spain being the key players and leaving Greece in a comparatively less advantageous third position. Portugal and other Middle Eastern countries such as Tunisia, Morocco and Lebanon, also contribute to the supply market of the US olive oil importing market.

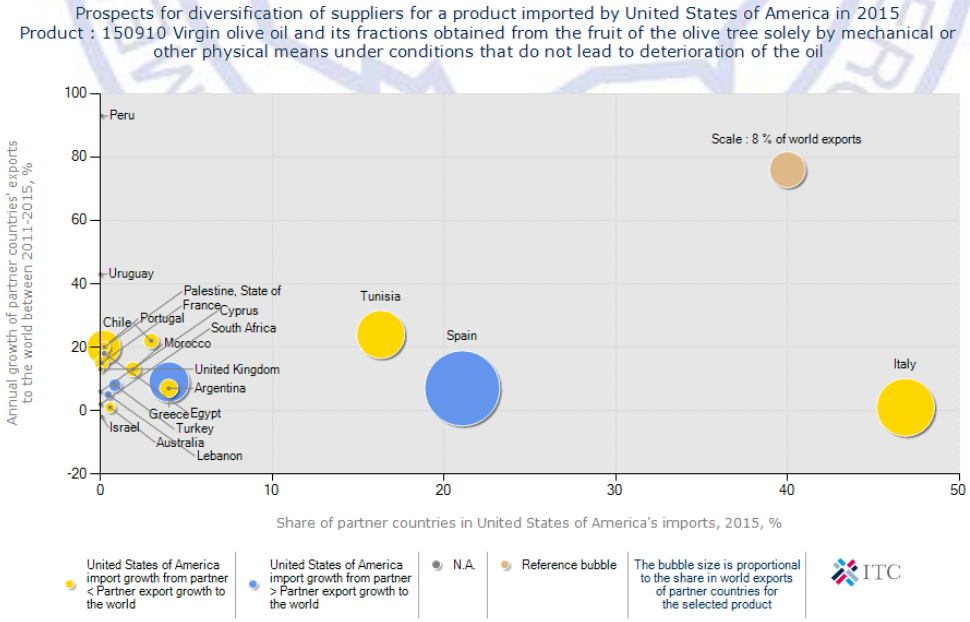
Figure 6A | Diversification of Suppliers for Olive Oil (HS Code 1509)



Source: International Trade Center (ITC)

Italy however is in the USA's most significant importer of olive oil, dominating the importing market needed to satisfy its domestic demand, in contrast to Spain which directly exports the unprocessed olives. Figure 6B presents the diversification of suppliers for Virgin olive oil.

Figure 6B | Diversification of Suppliers for Virgin Olive Oil (HS Code 150910)



Source: International Trade Center (ITC)

2.2. Main Exporters of Table Olives and Olive Oil to the USA

The major players of the two importing markets being studied are presented and analyzed below in terms of their monetary value (Tables 1 and 3) measured in thousands of US dollars and volume (Tables 2 and 4) measured in tons for both traded products of the olive tree.

Table Olives

The top-five importing nations for table olives in descending order are presented in Table 1. The table indicates that Spain alone holds just over half of the imported value in 2013, leaving Greece in second place with half the imported value of Spain and approximately one quarter of the total imported value to the US market. The succeeding competitors namely Morocco, Italy and Turkey, have relatively insignificant monetary values, a trend which indicates an **overall preference for European olives over the Middle Eastern varieties**, possibly due to their familiar taste to the US population and a higher quality product. The total imported value to the US between 2010 and 2014 has increased by 5,7%, with Spain capturing 48% of the total importing market of table olives in 2014.

Studying these preferences in relation to the terms of trade between countries is a factor which may facilitate and favor imports for the trade between Europe and the USA the two continents. This position may be significantly enhanced when the negotiations for the Transatlantic Trade and Investment Partnership (TTIP) are completed and the trade agreement is implemented.

Table 1: Imported Value by country to the US

HS Code: 200570 (Table Olives)
Unit: thousands US$

Exporters	2010	2011	2012	2013	2014
World	430,166	422,653	407,776	432,371	454,507
Spain	223,752	212,149	207,065	221,477	236,446
Greece	94,443	106,646	100,329	110,603	122,545
Morocco	41,650	43,383	38,404	37,427	39,590
Italy	13,296	14,531	16,864	20,730	21,852
Turkey	9,286	10,830	10,878	10,438	10,085

Source: UN COMTRADE & US Census Bureau

Table 2 shows the respective quantities imported to the US market for table olives. The data presented finds the above mentioned countries in identical positions. This categorizes the quality or/and popularity of table olives in the following order: Spain, Greece, Morocco, Italy and Turkey.

Table 2: Imported Quantity by country to the US					
HS Code: 200570 (Table Olives) **Unit:** tons					
Exporters	**2010**	**2011**	**2012**	**2013**	**2014**
World	140,721	128,810	130,957	132,159	128,830
Spain	69,868	65,367	70,215	67,922	71,652
Greece	25,127	25,872	24,354	28,458	25,470
Morocco	15,570	16,730	14,529	14,405	15,153
Italy	3,020	3,349	3,981	4,655	4,430
Turkey	3,679	3,821	3,788	3,689	3,609
Source: UN COMTRADE & US Census Bureau					

Olive Oil

The respective monetary values and quantities for olive oil (both virgin and regular olive oil and its fractions) under the HS Code 1509 are presented below. Looking at the importing market for olive oil, it is evident that Italy is the top exporting country capturing 48,3% of the total supply in 2014.

Table 3: Imported Value by Country to the USA					
HS Code: 1509 (Olive Oil) **Unit :** thousands of US$					
Exporters	**2010**	**2011**	**2012**	**2013**	**2014**
World	903,480	960,077	975,943	1128,621	1131,329
Italy	502,500	529,459	541,451	566,615	546,357
Spain	212,578	197,968	229,003	224,177	433,003
Tunisia	83,489	75,830	104,496	110,656	50,480
Greece	18,427	18,529	19,448	31,177	24,767
Morocco	428,917	62,987	15,119	18,708	15,887
Source: US Census and UN COMTRADE					

Spain and Greece follow along with Tunisia and Morocco which are the two non-European markets that dominate the supply US market and which capture 4,5% and 1,4% of the market respectively.

The Mediterranean countries remain amongst the top-five exporting nations to the US in terms of quantities. It is worth noting from comparing Tables 3 and 4, that the importing quantity of Italy is lower in comparison with that of Spain. However Italy has a higher

imported value which indicates that the quality and/or popularity of Italian exported olive oil is relatively higher than that of Spain's. Spain then follows which is then followed by Tunisia and Greece which is found in fourth position.

The Greek exporting market is comparably less competitive in exporting olive oil compared to that of the unprocessed olives. This trend indicates a potential weakness in the processing and exportation procedures of manufacturing olive oil in Greece.

Table 4: Imported Quantity by Country to the USA

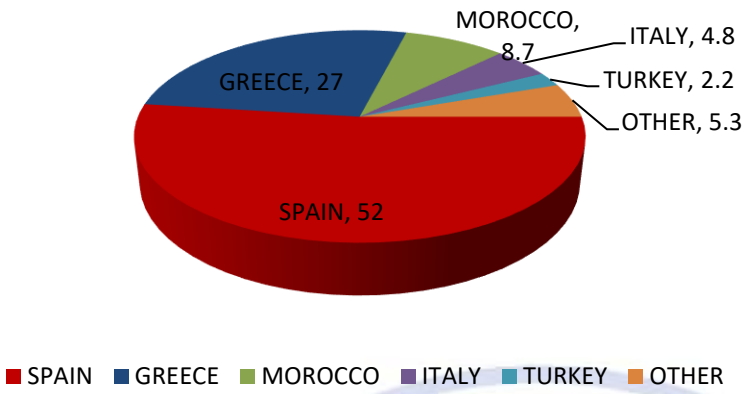
HS Code: 1509 (Olive Oil)
Unit: Tons

Exporters	2010	2011	2012	2013	2014
World	262,244	276,036	306,845	281,406	296,475
Spain	65,969	61,470	81,564	55,532	130,029
Italy	138,045	140,886	155,004	132,988	128,556
Tunisia	26,484	24,116	39,630	30,014	12,544
Greece	4,260	4,189	4,807	7,142	5,014
Morocco	11,418	23,678	5,438	5,879	4,762

Source: US Census and UN COMTRADE

The production levels for the non-traditional exporting countries including Tunisia and Morocco but also Turkey and Syria have almost doubled for the period 1990 – 2014 and have gained market share. In global terms they have increased their participation rate from 25% to 35% in terms of production. Evidently, as deducted from Table 4 in particular, this has had an effect particularly on the importing quantities of Tunisia to the US market, whose imported value declined even though there has been a significant increase in the number of tons imported by a factor of 4. It is interesting to note that the imported value remains at predominantly low levels confirming that the European olive oil is of higher quality and therefore has higher demand.

Figure 7 | Market Share in USA Imports for Table Olives (HS Code 200570)

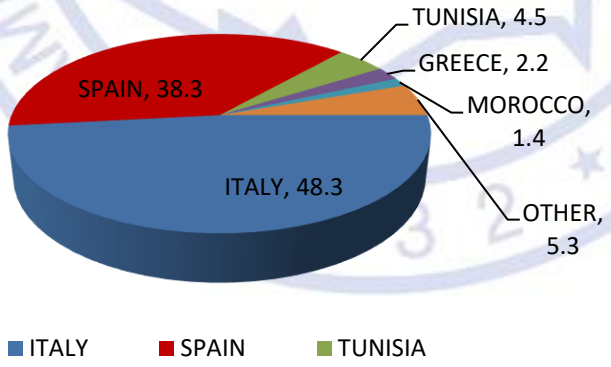


Source: Trade Statistics derived and combined from ITC

The market share of the top-five exporters of table olives is presented in the pie-chart above. The corresponding diagram for olive oil is illustrated by Figure 8.

For both products, the European Union (EU) countries control the US importing market with a minor contribution from Morocco and Turkey for olives. Spain and Greece have a strong competitive advantage and together they capture nearly 80% of the total supplying market. These countries create substantial competition for the domestic US supply market of olive oils and provide the additional supply in order to satisfy US demand and the needs of the national market. For the olive oil market Tunisia and Morocco are the two non-European players.

Figure 8 | Market Share in USA Imports for Olive Oil (HS Code 1509)



Source: Trade Statistics derived and combined from ITC

In order to obtain an in-depth understanding of the major exporting markets that export table olives and olive oil respectively, their structure, competitive positions and particularities within the US supply market, it is imperative to analyze each of them individually.

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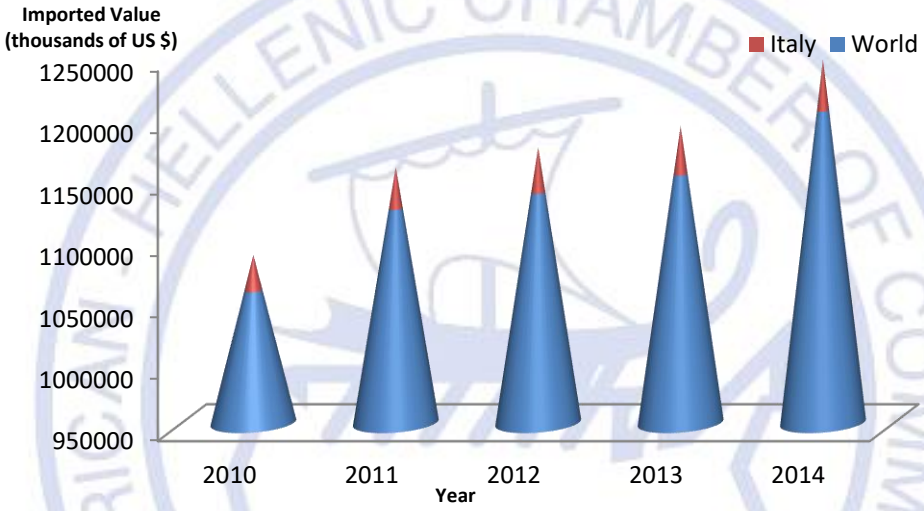
1932

Italy

Table Olives

The imported value of table olives in thousands of US dollars is proportionally small in terms of total imports. This is expected since the majority of the Italian production is processed into olive oil and exported in this form and therefore Italian table olives do not hold a large sector the market share in terms of monetary value.

Figure 9 | USA Imports Correlation Italy vs. World



Source: International Trade Center (ITC)

The figure 9 compares the imported values for the period 2010 - 2014 of table olives imported from Italy and the world. The most popular types of olives are green olives, sold in saline solution. Black olives in saline solution are the second most popular HS Code in the US market with less than half the imported value compared to green olives which have an imported value of approximately $10,000.

The total imported value in the US from the world for black olives is $30,000, meaning that the Italian exporting market makes up one tenth of the total imported supply market in the USA.

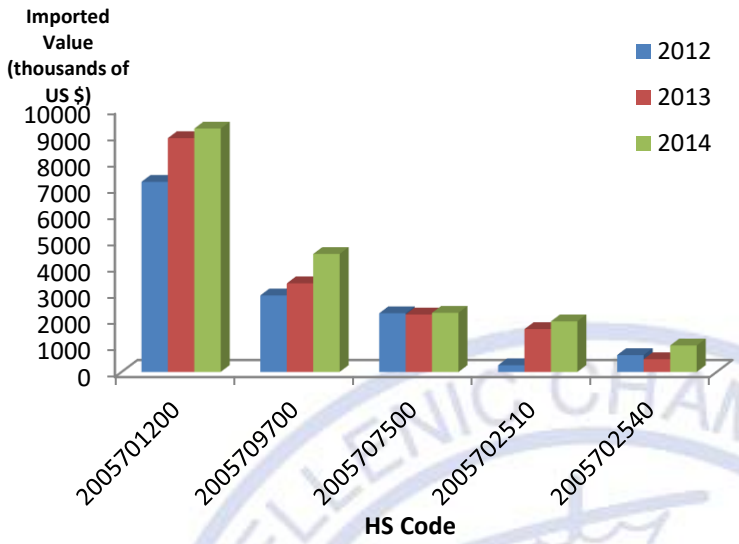
Green pitted olives in saline solution and in containers which hold 8kg or more (HS Code 2005702510) and less than kg (HS Code 2005702540), are also imported both from the world and from Italy in significant quantities. However they are less popular amongst US consumers and therefore are imported in smaller quantities. Their imported value from Italy alone is less than $1,000, while the total imported value from the world is approximately $15,000 in 2014.

Figure 10 | USA Imported Value of Table Olives

HS Code	Product Label
2005701200	OLIVES, GREEN, NOT PITTED, IN SALINE SOLUTION, NESOI, NOT FROZEN
2005709700	OTHER VEGETABLES, OTHERWISE PREPARED OR PRESERVE THAN BY VINEGAR OR ACETIC ACID, NOT FROZEN, NESOI
2005707500	OLIVES, NOT GREEN IN COLOR, NOT CANNED, IN SALINE SOLUTION, NOT FROZEN, NESOI
2005702510	OLIVES, GREEN, WHOLE, PITTED, IN SALINE SOLUTION, IN CONTAINERS HOLDING MORE THAN 8 KG EACH, NOT FROZEN
2005702540	OLIVES, GREEN, WHOLE, PITTED, IN CONTAINERS HOLDING LESS THAN 8 KG, IN SALINE SOLUTION, NOT FROZEN

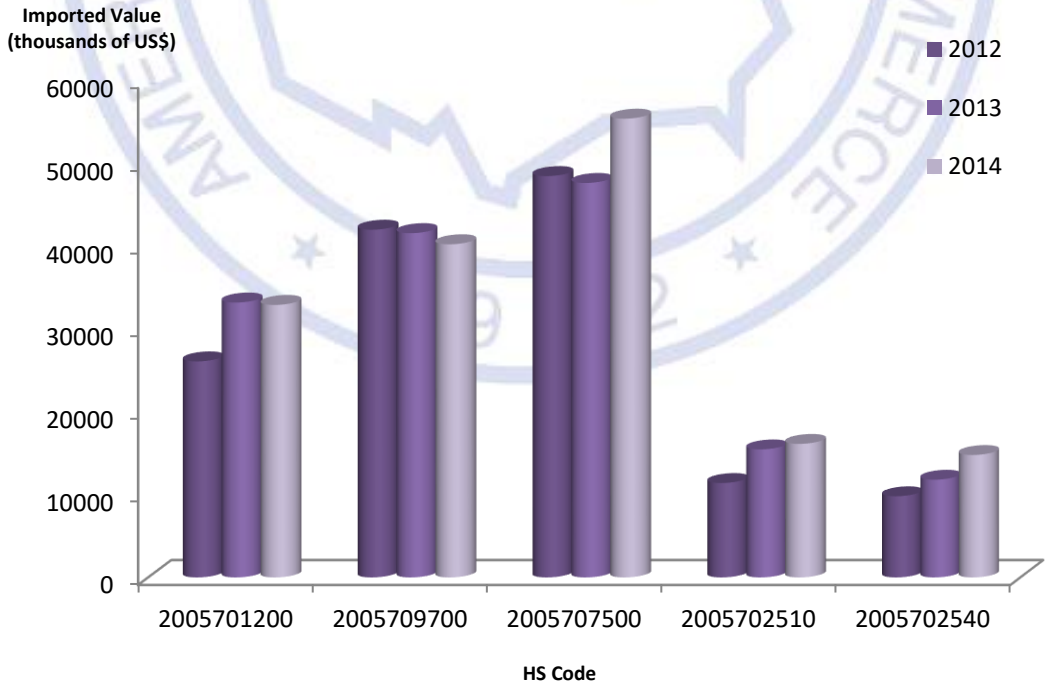
Source: International Trade Center (ITC)

A. Italy



Source: US Census

B. World

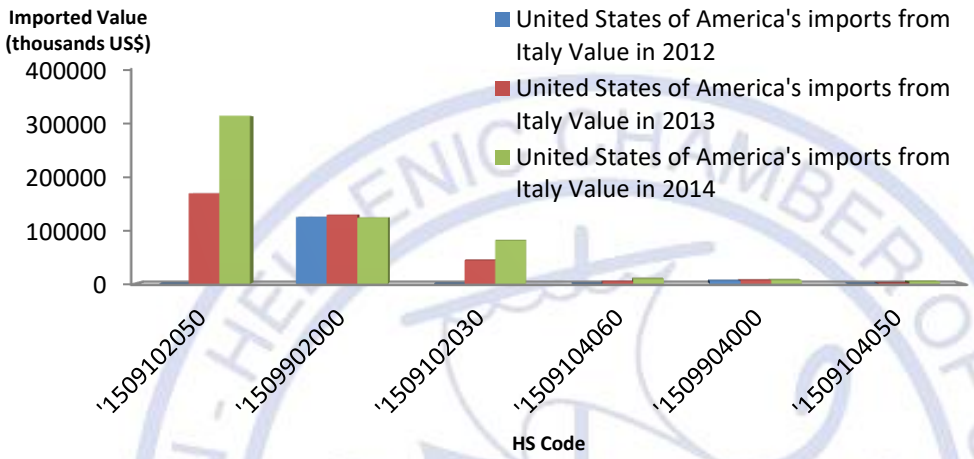


Source: US Census

Olive Oil

Italy has the highest selling price of olive oil in Europe and the world as a whole and dominates the traditional markets covering more than 2/3 of the US importing market as well as that of the German and the Canadian.

Figure 11 | Bilateral Trade between USA and Italy for Regular and Virgin Olive Oil (HS Code 150910 and 150990)



Source: US Census

According to Figure 11 which presents the bilateral trade pattern between the USA and Italy, non-chemically modified olive oil which is labeled as extra virgin and weighing less than 18kg is the most highly imported olive oil.

Between 2013 and 2014 the monetary value for this specific HS Code has more than doubled. For the organic olive oil and its extracts under the HS Code 1509902000 similar patterns are observed. Olive oil that is not labeled as virgin is the second most popular sub-code in this category and overall has a stable demand and imported value during the period 2012 – 2014.

The remaining HS Codes which are analyzed in the diagram are those which are sold in containers of 18kg or over and their demand is relatively insignificant as their monetary values indicate. When comparing the imported values from Italy as a percentage of the total imported value from the world, Italy has a stable and significant 40% participation rate for the last three years.

Product Code	Product Label
1509102050	Olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container under 18kg
1509902000	Olive oil and its fractions, refined not chemically modified, weighing with immediate container under 18 kg
1509102030	Certified organic olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container under 18kg
1509104060	Olive oil and its fractions, virgin, not chemically modified, weighing with the immediate container 18 kg or over
1509904000	Olive oil and its fractions, refined not chemically modified, weighing with immediate container 18 kg or over
1509104050	Olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container 18 kg or over

Source: International Trade Center (ITC)

Italy has reduced its overall output during the past 5 years compared with the previous decade of 17% due to the strong presence of the new markets.

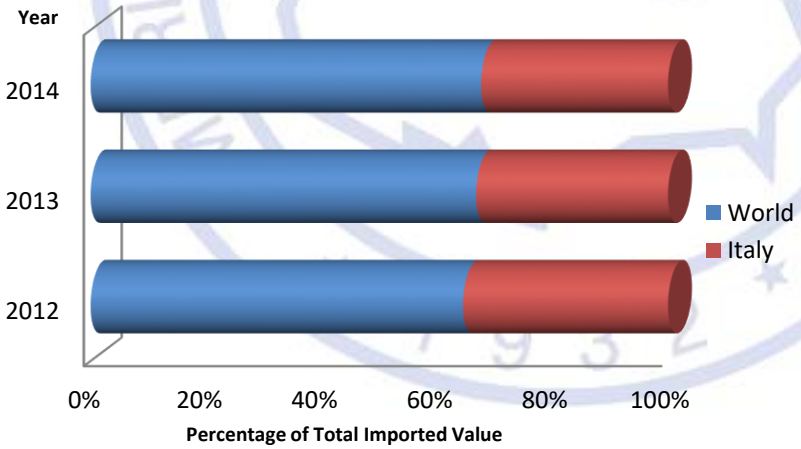
Italian olive oil manufacturing companies traditionally base their market on the importation of large quantities of olive oil from different origins, the most important of which are Greece which has high quality and Spain which produces particularly large quantities (and has contributed significantly to the increase in global production) and then export them to third countries.

The global trade flows which add up to 1.8 million tons last year, the total amount of the exported olive oil is imported into Italy and then again re-exported to the third countries. Different qualities and specifications are blended together to produce a branded product which is then exported to the international markets for consumption. A large quantity of this exported product is supplied to the US supply market so to satisfy domestic demand.

Italy's landscapes allow higher land productivity and therefore play a significant part in the production of quality olive oil which is considered of a particularly high quality. Subsidies to Italian farmers compromise a significant share of revenue (above the EU average) of the total EU subsidies per hector according to data presented by the European Commission. There is however an expected decline of about 30% in the subsidies given by the Common Agricultural Policy (CAP) by the year 2020. This means that assuming all the other factors remain constant that profits will decrease 0.3 Euros per kg.

At the moment the revenue and profitability for the period 2007 – 2012 Italy had the highest performance rates at 0.94€ per kg as well as the highest selling price excluding subsidies and at an average of 0.64€ per kg. Wage costs on the other hand in Italy are relatively higher than the rate in Greece, when not taking into account the unpaid labor costs.

Figure 12 | USA Imports for Olive Oil Italy vs. World (HS Code 1509)



Source: U.S. Census and UN COMTRADE

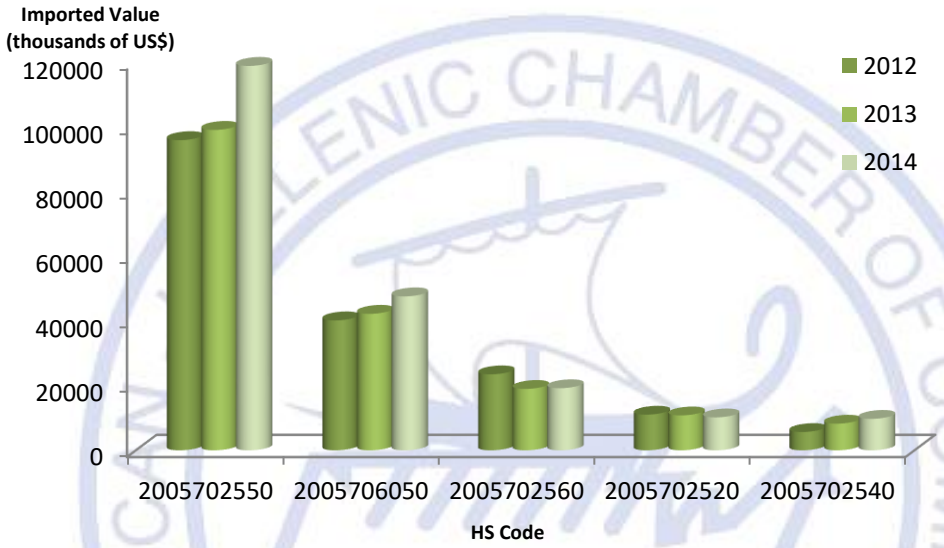
The relationship prevents the prevailing presence of the Italian in the US supply market in percentage terms, which mainly relies on the presence of recognizable brands and so is able to maintain a strong presence in international markets and a leading role in the US domestic market.

Spain

Table Olives

The Spanish exporting market for table olives to the USA has been the largest for the examined period, in contrast to that of olive oil, for which Italy has the leading position.

Figure 13A | Bilateral Trade Pattern between Spain and USA for Table Olives (2012 - 2014)



Source: U.S. Census and UN COMTRADE

HS Code	Product Label
2005702550	OLIVES, GREEN, WHOLE, STUFFED, CONTAINER LESS THAN 8 KG, IN SALINE SOLUTION, NOT FROZEN
2005706050	OLIVES, NOT GREEN IN COLOR, SLICED, CANNED IN A SALINE SOLUTION, NOT FROZEN
2005702560	OLIVES, GREEN, BROKEN, SLICED OR SALAD STYLE, CONTAINERS HOLDING LESS THAN 8 KG, IN A SALINE SOLUTION, NOT FROZEN
2005702520	OLIVES, GREEN, WHOLE, STUFFED, IN SALINE SOLUTION, IN CONTAINERS HOLDING MORE THAN 8 KG EACH, NOT FROZEN
2005702540	OLIVES, GREEN, WHOLE, PITTED, IN CONTAINERS HOLDING LESS THAN 8 KG, IN SALINE SOLUTION, NOT FROZEN

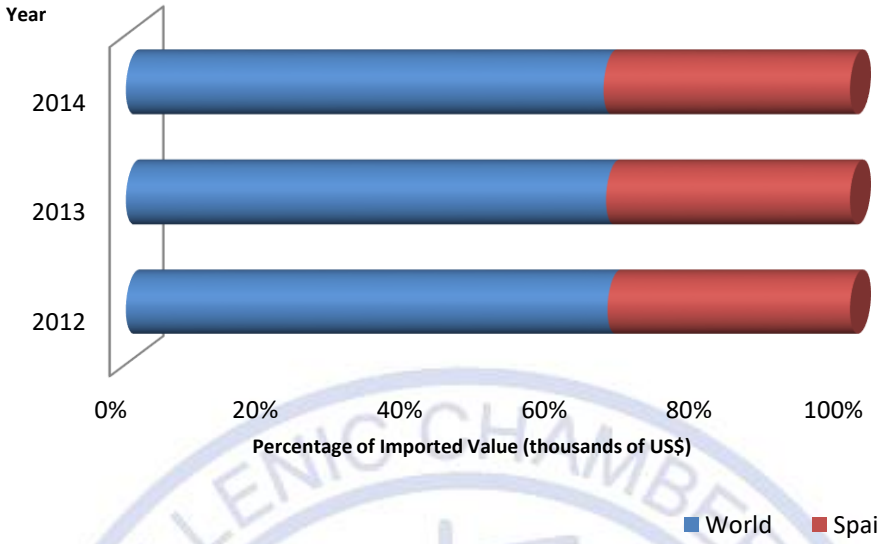
Source: International Trade Center (ITC)

The most popular sub-codes of imported table olives in the US with the highest imported values are presented in Figure 13A.

Green olives, stuffed and sold in smaller containers are again the most popular. The next most popular HS Code is the sliced olives, which are not green in color canned and in a saline solution.

Salad style, green olives are facing a decreasing trend in their imported value. **The Spanish exporting market tends to focus on table olives and invests more in their manufacturing process, than on processing them into olive oil for consumption.** The Spanish exporting market is therefore dominating in the US supply market for table olives; Figure 13B strongly represents this relationship in terms of percentages.

Figure 13B | USA Imports from Spain vs. World for Table Olives (HS Code 200570)

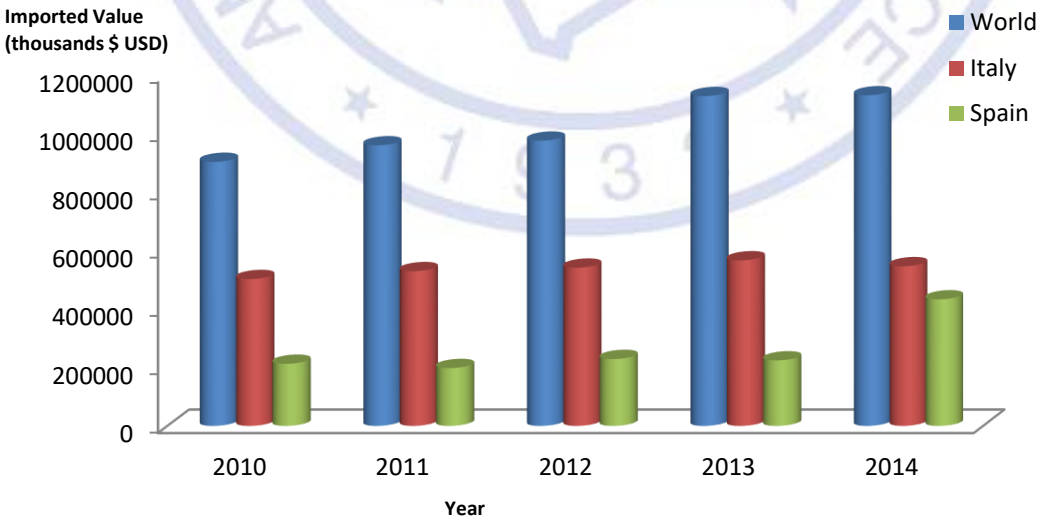


Source: U.S. Census and UN COMTRADE

Olive Oil

Spain remains the second largest market in the USA for imported olive oil. The imported values of Italian and Spain olive oil in relation to that of the world are presented in Figure 14. As indicated below, when the top two exporters are pooled they make up the majority percentage of the total imported value.

Figure 14 | USA Imported Value from World, Italy and Spain (Regular and Virgin Olive Oil)

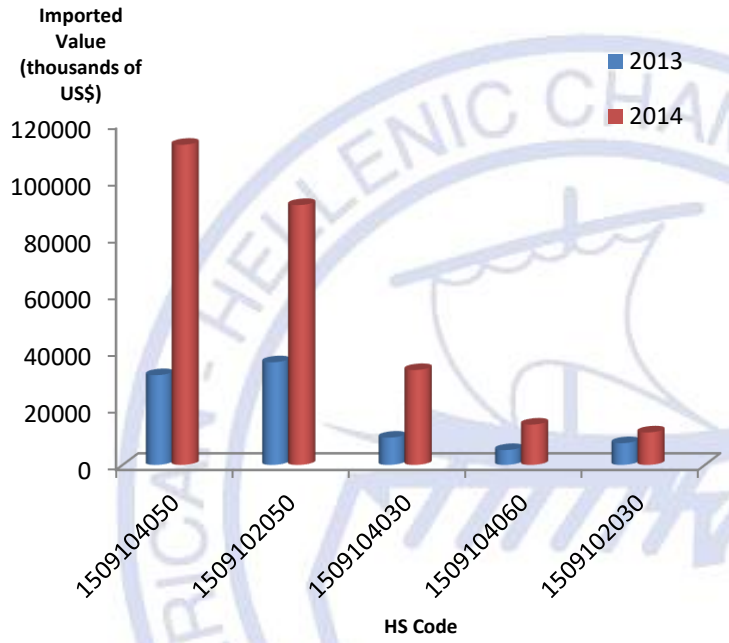


Source: International Trade Center (ITC)

Italy is leader of the sector with about 40% of global production which plays an influential role in the international competitive landscape, however Spain has managed to significantly increase its production levels in 2014 (0.6 million tons) to double what they were in 1990 (1.2 million tons).

By penetrated new markets and although they have a secondary presence in the US supply market, the Spanish olive oil market dominates 2/3 of the market share in Australia, Russia, China and Japan.

Figure 15 | Bilateral Trade between Spain and USA for Virgin Olive Oil (HS Code 150910)



Source: US Census Bureau

Product Code	Product Label
1509104050	Olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container 18 kg or over
1509102050	Olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container under 18kg
1509104030	Certified organic olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container 18 kg or over
1509104060	Olive oil and its fractions, virgin, not chemically modified, weighing with the immediate container 18 kg or over
1509102030	Certified organic olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container under 18kg

Source: International Trade Center (ITC)

Olive oil which is under the category of extra virgin, sold in larger containers is the primarily traded product in the between Spain and the USA. The second most highly HS Code is extra virgin olive oil which is sold is smaller containers. This trend supports the large quantities which Spain produces on a global level.

There is also an increase in the certified organic market for extra virgin olive oil as the HS Code below indicates. This is possibly because of an increased awareness of the health benefits of organic products.

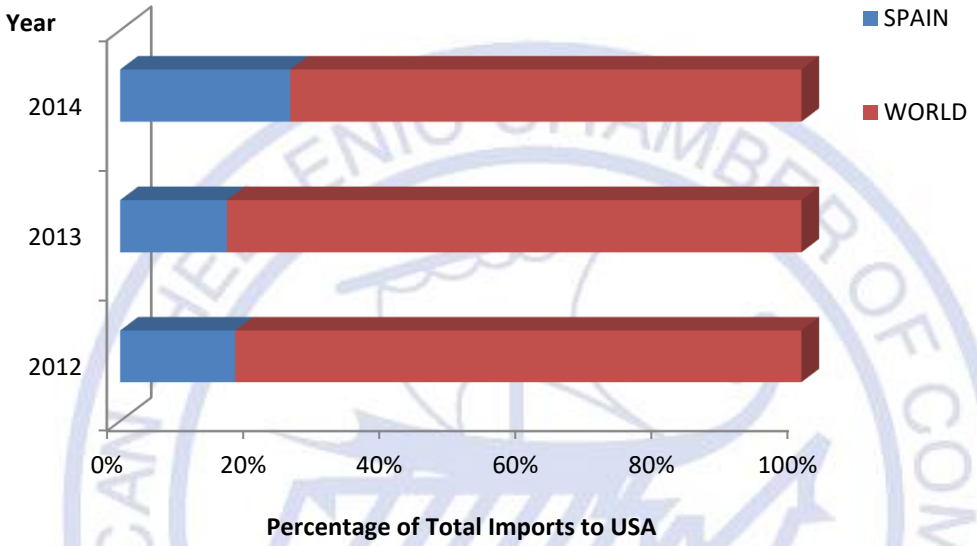
In the international market as a whole, Spain and Italy each obtain a stable share of 35% for the last 20 years. In order to survive the international markets, each of the three main producers presents differences in their marketing strategies. Spain mainly aims to be closer to the average consumer and to provide to its buyers a moderate price and quality.

Spain has the lowest production costs in comparison to its other two European competitors and also an increase in the extra production during the past 25 years which is heavily export orientated. More specifically, during the past five years, 65% of Spain's total production is exported while during the 1990s less than 50%. Spain relies on cost advantages in the initial

stages of production allowing more competitive prices and access to markets where Italian olive oil is considered too expensive. Spain is the most competitive in terms of cost since it benefits from the more advanced mechanizations of production and modernization of the processing stage.

Figure 16 indicates the relationship between the imports from Spain as a percentage of the total imported values from the international markets. The trend indicates an increasing contribution in the US supply market.

Figure 16 | Total Imports from Spain vs. World for Olive Oil (HS Code 1509)



Source: US Census Bureau

Tunisia

Olive Oil

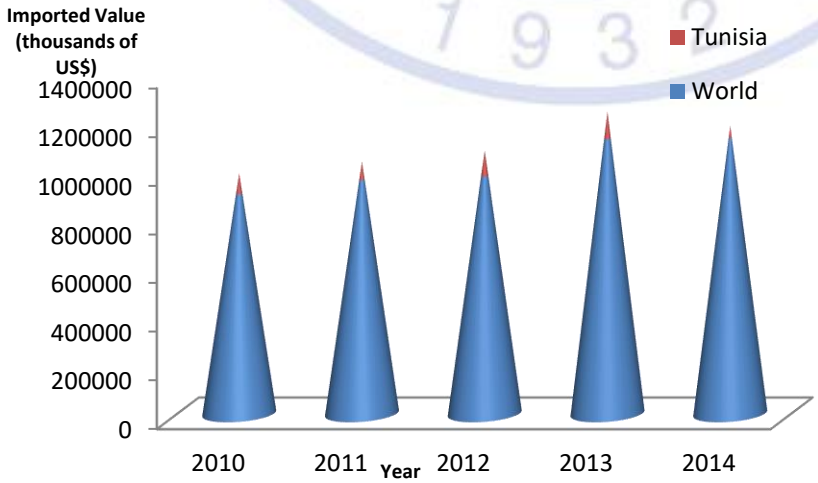
Tunisia is found amongst the newly-producing and exporting markets for olive oil on an international level with the most significant market share from these countries. In 2014 Tunisia increased with a 400% increase compared to last year's production from an estimated figure of 70,000 tons in 2013 to about 290,000 tons in 2014. Overall, olive oil exports represent about 40% of the total national agricultural production.

A large proportion of which is exported to Europe (mainly Italy and Spain), around 60 – 70% of total production and other 60 markets including the USA, Russia, China and some Arab countries in a variety of about 80 brands. This leaves a very small proportion of production for consumption domestically, which means that olive oil in the domestic market is often being substituted with other types of oil. An additional factor which has contributed to Tunisia being the world's second largest olive oil producer for the first time is that Italy and Spain experienced an exceptionally bad harvest that year.

Taking a closer look at the final product and the way in which Tunisia manages to differentiate its production and thus target a particular niche market is through its price. Similarly to the other small producers such as Morocco (analyzed below) and Turkey, the Tunisian production is less in terms of quantity and quality. As new producing countries in the global and the US supply market, Tunisia's exports target consumers whose priority is a lower price rather than a higher quality.

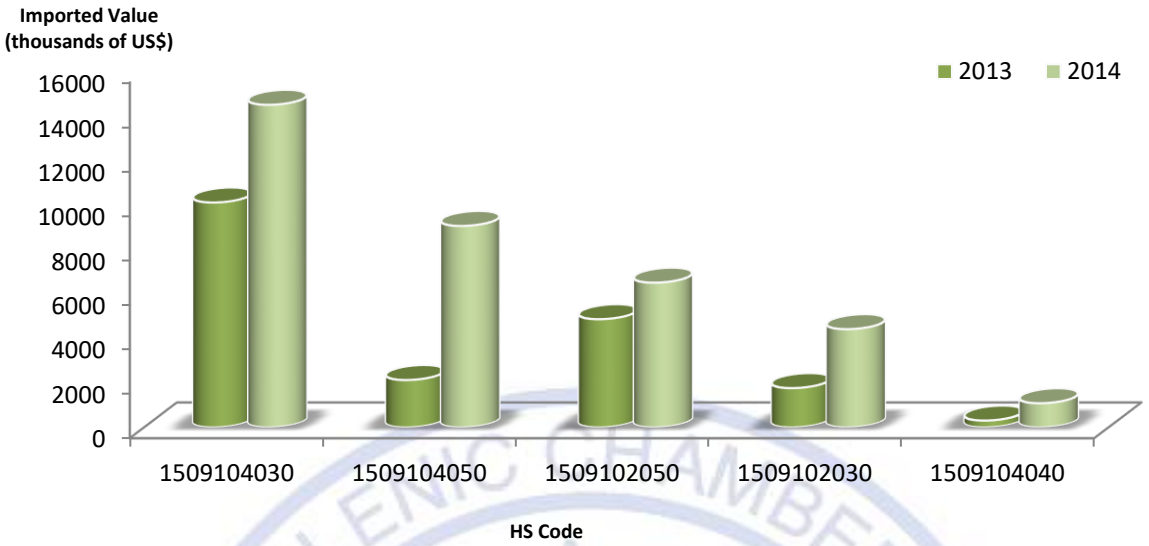
In contrast to the other two European producers and exporters of olive oil which dominate the US market, it is in this way that Tunisia is able to sustain a relatively dominating position in the US supply importing market for olive oil. As figure 17 indicates, the overall contribution in terms of value is near negligible in relation to that of the global importing market.

Figure 17 | USA Imports Correlation Tunisia vs. World for Olive Oil (Regular and Virgin)



Source: US Census and UN COMTRADE

Figure 18 | Bilateral Trade between Tunisia and USA for Virgin Olive Oil (HS Code 150910)



Source: UN COMTRADE and US Census Bureau

HS Code	Label Product
1509104030	Certified organic olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container 18 kg or over
1509104050	Olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container 18 kg or over
1509102050	Olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container under 18kg
1509102030	Certified organic olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container under 18kg
1509104040	Certified organic olive oil and its fractions, virgin, not chemically modified, weighing with the immediate container 18 kg or over

Source: International Trade Center (ITC)

The top HS Codes imported from Tunisia to the US market in 2013 and 2014 is the certified organic olive oil sold in large containers.

Extra-virgin olive oil and its fractions also contribute significantly to the overall imported value to the US supply market.

This indicates that the majority of the oil is exported in large containers, possibly destined for bulk consumption in restaurants or public services or imported at a lower price and bottled domestically before being placed in the retail chain.

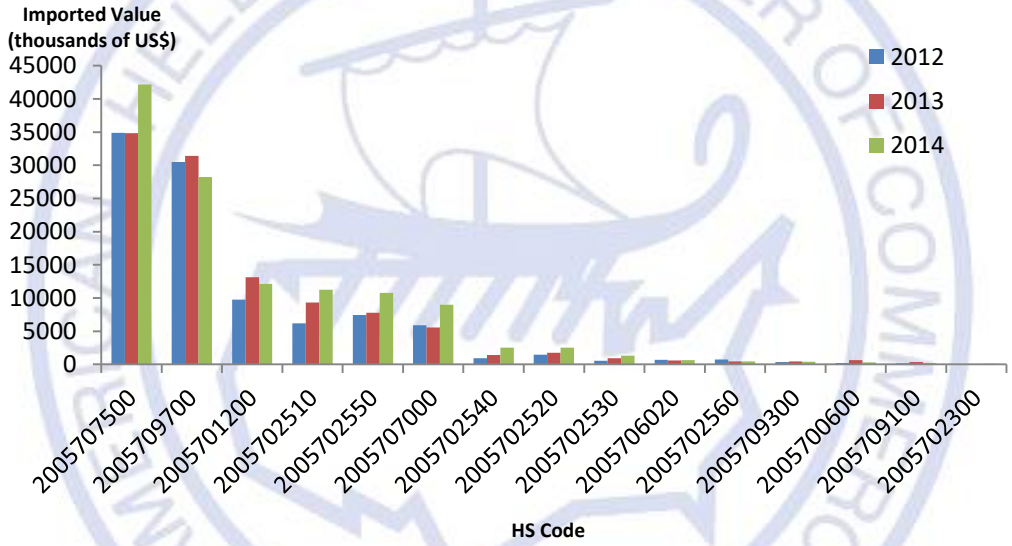
In other words oil imported to the US supply market from Tunisia does not target consumers directly; rather it aims at oil manufacturing companies. This trade pattern is explained by the fact that, Tunisia is not a major producing country and its contribution comes primarily from organic olive oil.

Greece

Table Olives

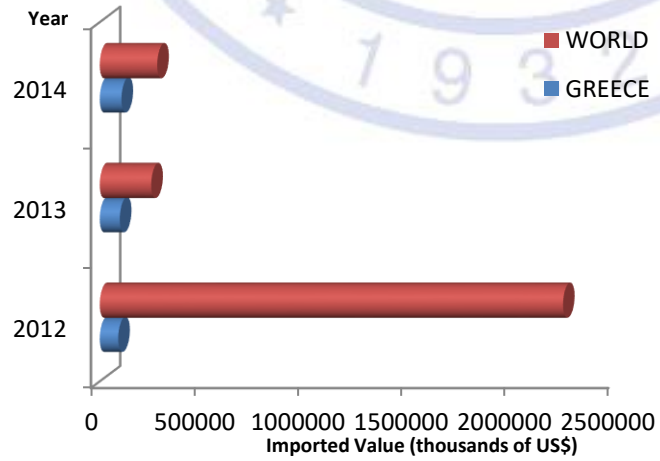
The Greek market for table olives is the second largest in the US market after Spain, capturing 37% of the market in 2014. Greece manages to stay competitive in this industry by exporting very specific HS Codes as indicated below. In 2014 the most popular sub-code was olives not green in color, not canned and in saline solution, indicated by figure 19A. In this way the Greek market differentiates itself from the Spanish which mainly exports green olives and remains amongst the top suppliers.

Figure 19A. | Bilateral Trade between USA and Greece



Source: US Census

Figure 19B | US Imported Value Greece vs. World



Source: US Census

Comparing the total imported value of table olives from the world and that specifically from Greece, there has been a great decrease in the imported value from the world between 2012 and 2014. Furthermore the share of the imported value of table olives coming from Greece has marginally increased during this period. This indicates a market which has not yet matured and is relatively open to new competitive entrants.

Olive Oil

As the 3rd largest producing country in the global olive oil market and the 4th largest exporting market to the US, Greece presents an important comparative advantage in the international markets since 80% of its domestically produced olive oil is labeled as virgin or extra-virgin and thus is considered of high quality and therefore has a high potential to be competitive.

Although Greece has one of the highest domestic olive oil consumption per capita, recently consumption has been declining to 16kg per capita in 2014 to an average from 20kg per capita in 1990, as in increase amount of oil is being exported to Italy and other markets such as the US.

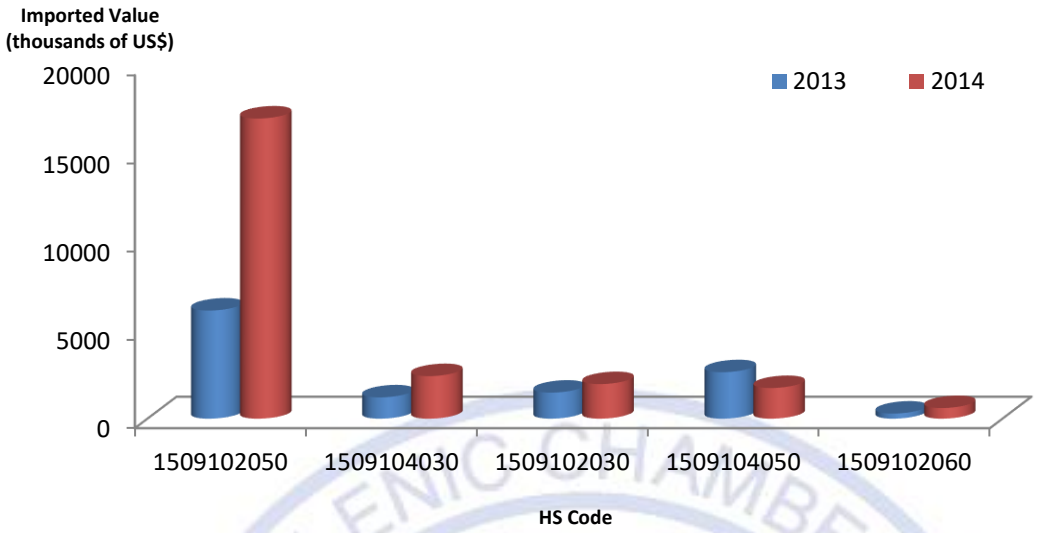
Greek companies lack economies of scale and therefore compete at a disadvantage and the lack access to international markets, compared to that of the Italian and Spanish markets. Two negative effects of Greek olive oil include the low familiarity of foreign consumers with the taste of Greek virgin olive oil which is more intense than the oils which are refined or blended.

Approximately 460 companies which produce branded olive oil in Greece and contrary to the farming stage the sector of branded olive oil is highly concentrated and mainly targets the domestic market. Exports absorb just 35% of the Greek production partly due to a lack of an efficient export strategy. However given the high quality product, there is still low awareness of Greek branded olive oil among foreign consumers including the US market, only a small number of small Greek brands manages to reach the international platform. In addition to that the brands that do only manage to remain on the international level for a limited period of time leading to low awareness of the Greek brands, like is the case with Italy. 27% of the total Greek olive oil is distributed as a branded product when in Spain 50% and 80% in Italy.

Figure 20 | Trade Balance of Olive Oil Greece vs. World

Source: US Census

Figure 21 | Bilateral Trade between USA and Greece for the top HS Codes of Virgin Olive Oil



Source: US Census and UN COMTRADE

HS Code	Product Label
1509102050	Olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container under 18kg
1509104030	Certified organic olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container 18 kg or over
1509102030	Certified organic olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container under 18kg
1509104050	Olive oil and its fractions, labeled as extra virgin, not chemically modified, weighing with the immediate container 18 kg or over
1509102060	Olive oil and its fractions, virgin, not chemically modified, weighing with the immediate container under 18kg

Source: International Trade Center (ITC)

For 2014 the most highly traded HS Codes of virgin olive oil is the extra virgin category. The organic extra virgin olive oil is also becoming increasingly popular in the US market as the advantages and health benefits from its consumption are becoming increasingly known.

Extra virgin olive oil sold in small containers has gained market shared by tripling their imported value in the course of one year.

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Morocco

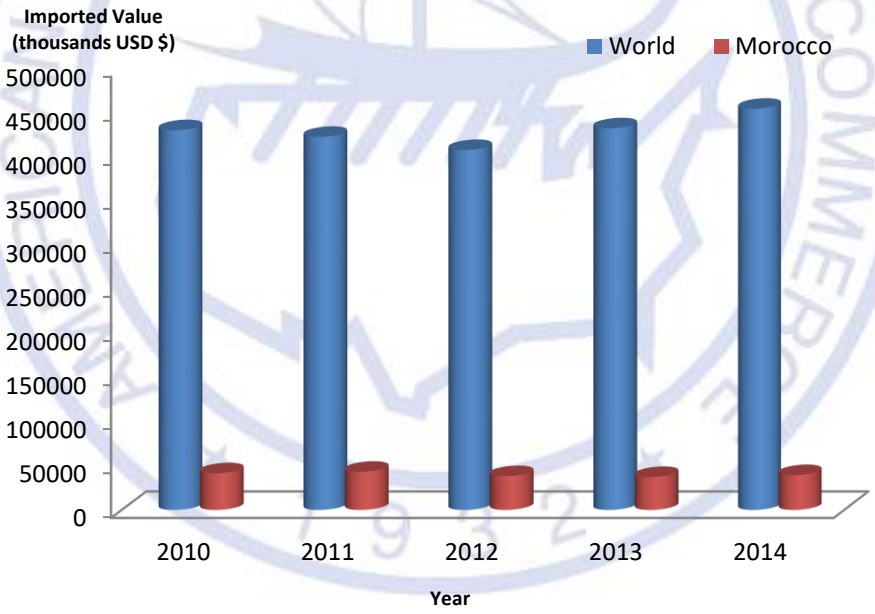
Table Olives

Since the early 1960s the area dedicated for the cultivation of the olive plant has increased from 128,500 hectares to 600,000 hectares, representing 6% of the nation's cultivated area. In terms of imported values Moroccan imports to the US seem to have a relatively low market share which has remained stable for the five years.

The main varieties which are grown in Morocco are "Moroccan" Picholine (96%) and the "Languedoc" Phicholine, Dahbia and Meslala (4%) of domestic production.

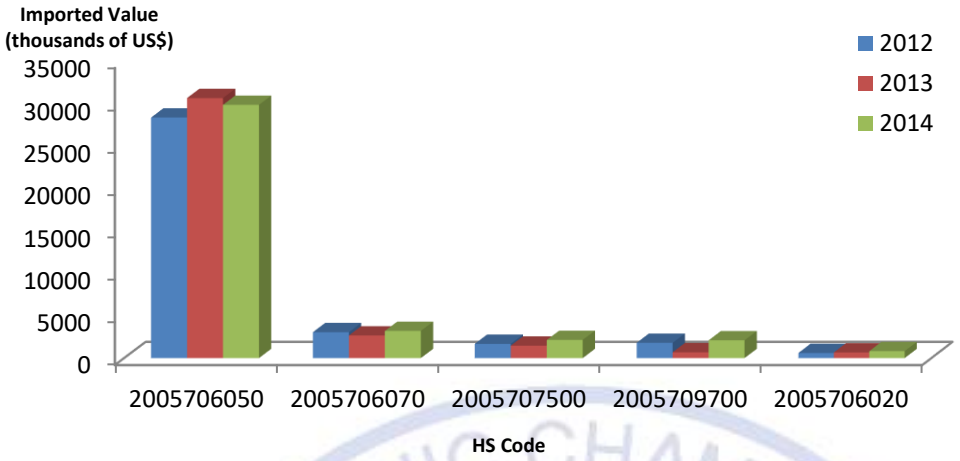
In the US importing market, Morocco is found in 3rd place, after Greece for the past five years.

Figure 22 | USA Trade Balance World vs. Morocco



Source: US Census

Figure 23 | Bilateral Trade between USA and Morocco for Table Olives



Source: U.S. CENSUS and UN COMTRADE

HS Code	Product label
2005706050	OLIVES, NOT GREEN IN COLOR, SLICED, CANNED IN A SALINE SOLUTION, NOT FROZEN
2005706070	OLIVES, NOT GREEN IN COLOR, OTHER INCLUDING WEDGED OR BROKEN, CANNED IN SALINE SOLUTION, NOT FROZEN
2005707500	OLIVES, NOT GREEN IN COLOR, NOT CANNED, IN SALINE SOLUTION, NOT FROZEN, NESOI
2005709700	OTHER VEGETABLES, OTHERWISE PREPARED OR PRESERVE THAN BY VINEGAR OR ACETIC ACID, NOT FROZEN, NESOI
2005706020	OLIVES, NOT GREEN IN COLOR, WHOLE PITTED, CANNED IN SALINE SOLUTION, CONTAINERS HOLDING MORE THAN .3 KG EACH, NOT FROZEN

Source: International Trade Center (ITC)

The **black olives** which are similar to that of the Californian produced make up the majority of the exported product from Morocco to the US. The familiarity of the US consumers has a direct influence of the popularity of this sub-code and additionally green olives can be found at a lower price from the European markets (i.e. Spain and Greece).

Olive Oil

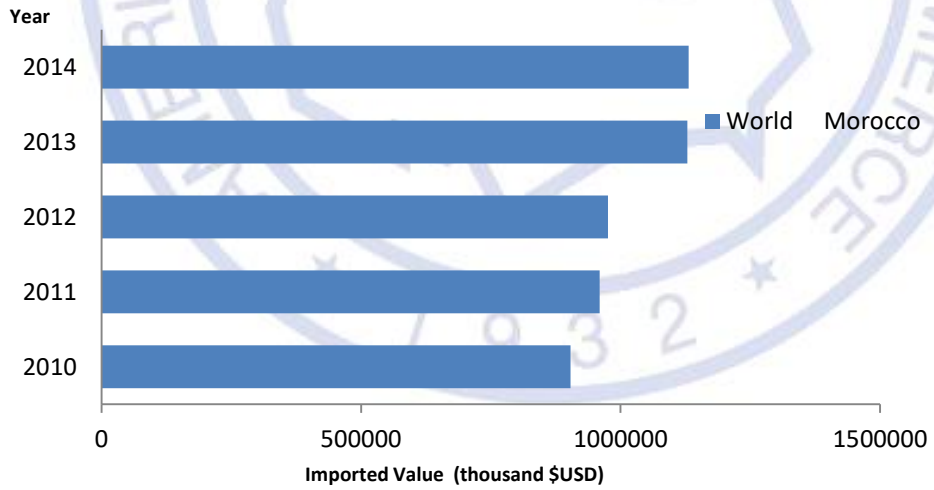
The market structure is similar to that of Tunisia, which also is a newly-producing nation and targets the US market by offering a lower priced product. Production and exportation targets consumers on an international level which prefer a lower price than a higher quality product.

Morocco has also contributed to the 15% of the global increase in branded virgin olive oil from Tunisia, Syria and Turkey to the US olive oil market. Like is the case in Tunisia, the Moroccan olive oil production is also significantly increased in 2014 on a global scale.

Morocco is the 5th largest importing market for olive oil, however it contribution is minimal since it captures only 1,4% of the total imported value in 2014. The figure below supports the low participation rate of Moroccan olive oil in monetary terms (estimated in thousands of US$).

In 2011 there was a slight increase in the proportion of imported value in terms of the total imported value from the world but this pattern did not persist in the following years.

Figure 24 | USA Imports from World vs. Morocco (2010 – 2014)



Source: US Census and UN COMTRADE

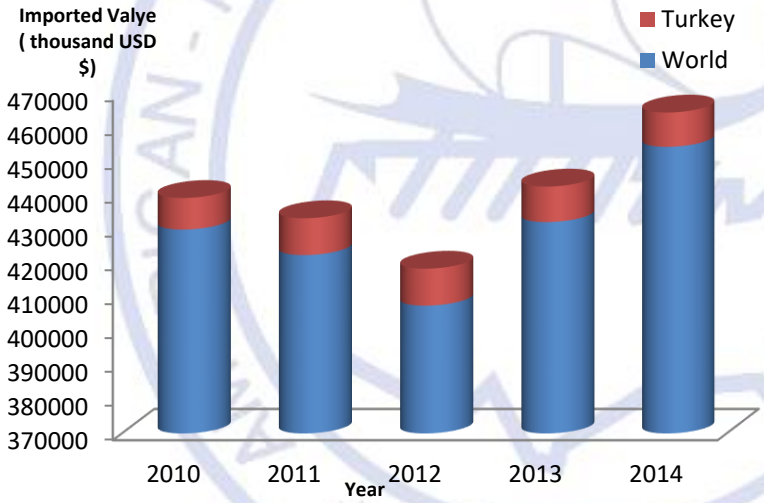
AMERICAN - HELLENIC CHAMBER OF COMMERCE
1932

Turkey

Table Olives

Turkey is the only Asian country which plays an influential role in the table olive industry. Additionally its position in the olive oil market is relatively insignificant, although it is a traditional oil producing country. Figure 25A indicates the proportional contribution to the US supply market in monetary terms. Its contribution in the US supply market on international terms is presented by red which indicates that the Turkish importing market maintains a stable position and thus the Turkish table olives are popular amongst US consumers.

Figure 25A | USA Imports from Turkey vs. World for Table Olives

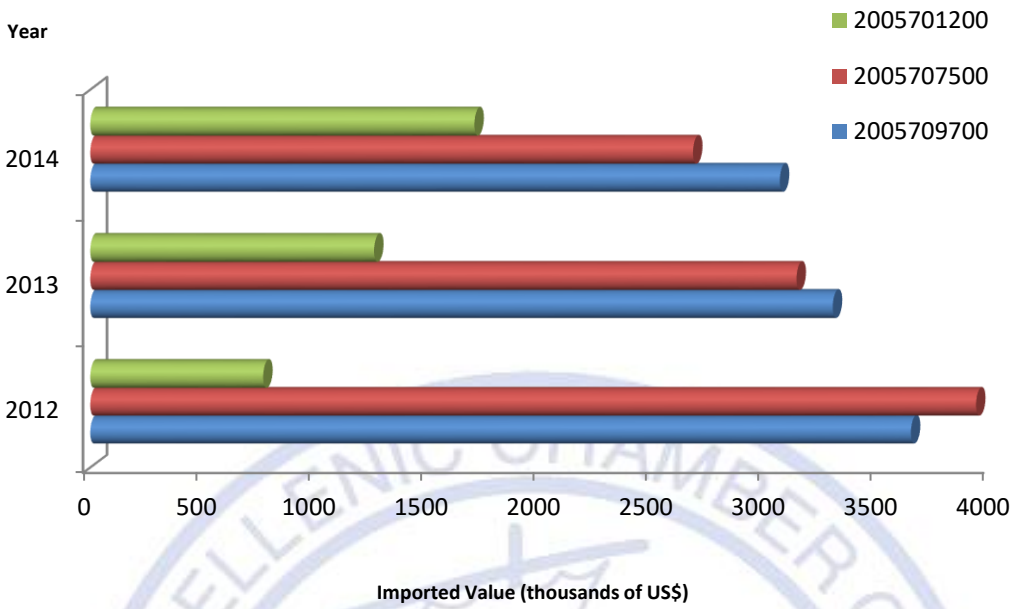


Source: U.S. Census and UNCOMTRADE

HS Code	ProductLabel
2005709700	OTHER VEGETABLES, OTHERWISE PREPARED OR PRESERVE THAN BY VINEGAR OR ACETIC ACID, NOT FROZEN, NESOI
2005707500	OLIVES, NOT GREEN IN COLOR, NOT CANNED, IN SALINE SOLUTION, NOT FROZEN, NESOI
2005701200	OLIVES, GREEN, NOT PITTED, IN SALINE SOLUTION, NESOI, NOT FROZEN

Source: U.S Census

Figure 25B | US Imports Balance Turkey vs. World



Source: U.S. Census Bureau and UN COMTRADE

According to figure 25B, in 2014 the black olives (not green in color) sold in a saline solution, are the most highly imported type from Turkey to the US market. Green olives, not pitted and sold in containers smaller than 3kg, follow. The most highly traded products in category 20 are the ones labeled as "other vegetables", which are not of primary interest to this report.

2.3. Key Insights

- **Spain** is the **leading exporter of table olives to the US**, closely followed by Greece and captures 46% of the total importing market in 2014

- Spain's most highly imported category of table olives are **stuffed green olives** and **sliced green olives** suggesting that Spain invests more on processing table olives destined to be exported rather than olive oil

- Between 2010 and 2014 **Morocco's market contribution has decreased** by 4,9% of the US importing market of table olives, while that of **Greece and Italy has slightly increased**

- **Italy** is the leading exporter of olive oil, since it is able to buy in **bulk** (form the Mediterranean basin) at a low price and has the capital to process and bottle the product before exporting it

- Greece is the 3rd largest producing country in the global olive oil market and the 4th largest exporting market to the US

- **Greek Extra Virgin olive oil** has tripled its imported value to the US between 2013 and 2014

- There has been a significant increase in the imported value for **certified organic olive oil** particularly from Italy

- **Morocco** mainly exports **black (non-green) olive oils** and manages to keep the 3rd position in the US importing market

- Tunisia – a newly producing market for olive oil has **increased domestic production by 400%** in 2014

- Turkey is the **only Asian country** found amongst the top international exporters of table olives to the US, with a minimal contribution of 2,2% in 2014

- Besides its natural competitive advantage because of the mild climate and excellent growing condition for the olive fruit, the European Union provides subsidies through the **Common Agricultural Policy** (CAP), which contribution encourage production, implementing exist strong barriers to entry for the non European and newly-producing competitors

- **Exporting Market specialization** is an essential in order to maintain international balance amongst competitors

2.4. Overview

The table olive and olive oil industries are found amongst the healthiest products of the food and beverages industry. At the moment there are 29 labels of olive oil which are certified as PDO protected designation of origin and PGI protected geographical indication.

Even though the Mediterranean diet index has a downward trend in the top three olive producing countries but is increasing in the rest of the world, increasing global demand and in parallel demand in the US. Pressure has been put on to the price levels during the past 25 years. There has been a decline in the international producer price[1] by 1.5% annually from 1990 due to the increase in aggregate supply from the non-traditional markets but also due to some catastrophic harvests in Italy and Spain during the early 2000s. However the new or non-traditional markets have managed to increase their market share in the international virgin olive oil market 6% in the last years. Overall, this indicates a market that has not yet matured and so is relatively open to new entrants which are prepared to face strong competition from the traditionally leading Mediterranean players.

Distribution networks in the US are mostly controlled by large retailers which buy large quantities at very low prices. In conclusion, Italian products are considered to have a higher value-added product from the totality of the foreign markets in the domestic US olive oil market. The Greek olive oil is of exceptional quality because a large proportion is labeled as extra virgin. In international markets olive oil is increasingly exported in bulk, which means that the final consumer is not targeted directly. This type of olive oil has a lower added-value most of which is destined to reach Italy for re-exportation. Apart from the variations in qualities available within the market, this lower export prices for the bulk exporting countries compared to that of the branded.

[1] Estimated as the weighted average of the prices in the top 3 producers based on their contribution in production

Chapter 3 | USA Market Analysis

3.1. Domestic Market Analysis

Consumption – Table Olives & Olive Oil Demand

Consumption or in other words domestic demand for products of the olive fruit is the key factor which influences production and consequently imports. An increase in the global consumption of olive oil since the beginning of the 1990s has intensified bilateral trade patterns between the major producing countries and the USA.

For table olive domestic consumption for the period 2004 - 2013 is summarized in the table below.

Table 5: USA Table Olive Domestic Consumption, 2004-2013 (HS Code 1509)

Category	Price Point	Unit	2008	2009	2013	CAGR 04-08	CAGR 08-13
Value							
Retail	Retail	000s, $US	537.516	548.262	595.830	2,70%	2,10%
Foodservice	OBP	000s, $US	903.845	728.261	1.044.522	11,30%	2,90%
Volume							
Retail	Retail	Metric Tonnes	53.628	53.306	52.248	-3,50%	-0,50%
Foodservice	OBP	Metric Tonnes	140.819	138.002	127.289	-2,00%	-2,00%
Retail	Retail	$US	$10,02	$10,29	$11,40	6,50%	2,60%
Foodservice	OBP	$US	$6,42	$5,28	$8,21	13,60%	5,00%
Consumption Per Capita							
Retail	Retail	Kilogram	0,176	0,174	0,164	-4,40%	-1,50%
Foodservice	OBP	Kilogram	0,463	0,449	0,399	-2,90%	-2,90%
Total		**Kilogram**	**0,639**	**0,623**	**0,562**	**-3,40%**	**-2,50%**

Source: United States International Trade Commission

Figure 26A | Consumption of Olive Oil in the US 2000 – 2014

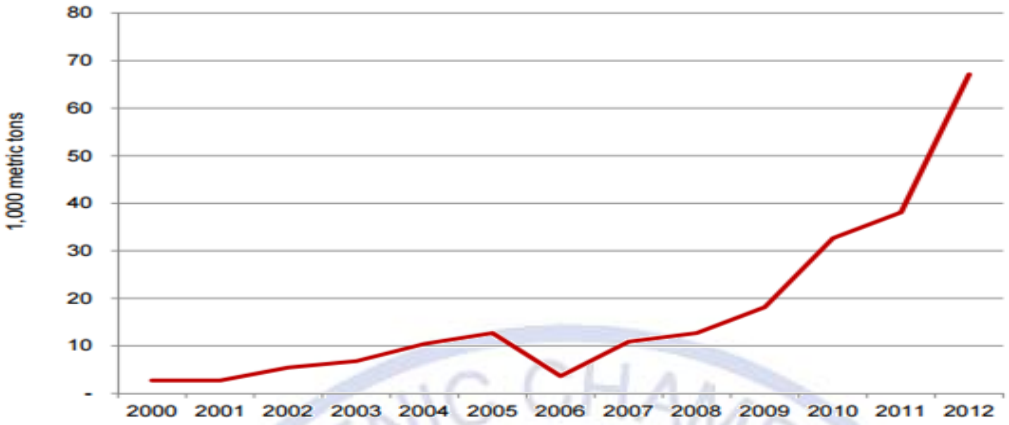
Source: United States Department of Agriculture (USDA)

Because of the increased awareness of its health benefits and the Mediterranean diet, US consumers tend to consume increasingly more olive oil in their diet, in their attempt to adapt and maintain a healthy lifestyle. The data from the USDA supports this argument. The increase in demand for both by-products of the olive fruit, has encouraged the growth of the olive tree beyond the Mediterranean region and the southern European countries towards non-traditional markets, including the United States as well as other South American countries such as Argentina and Chile and Australia which have become known as the "New World" producing countries (United States International Trade Commission).

Price is an influential factor which influences consumption and can explain the sudden fall in consumption during 2012. For the US citizens 2012 was a year of uncertainty resulting to a great extent from the US elections, during which businesses were uncertain of the upcoming economic path of the country and the European Debt Crisis which resulted in reluctant consumer behavior towards specialty foods and therefore lower oil consumption. The trend recovered immediately the following year.

Figure 26B presents a second use for olive oil and graphically represents the increase in the use of US produced olive fruit crushed for the production of oil between 2000 and 2012. Particularly after 2006 the proportion of US produced lives used for oil is rapidly increasing.

Figure 26B | US Olive Fruit Crushed for Oil between 2000 - 2012



Source: USDA, NASS, Fruit and Tree Nut Annual, 2000 – 2012

Total US demand during the past few years has been intense in the north-eastern region of New England as well as the Middle and South Atlantic, where the average annual sales per capita for olive oil have been highest. The map below summarizes the annual sales per capita of olive oil for the whole of the US.

Figure 26C | Average annual US per capita sales by region 2010 - 2013

Source: United States International Trade Commission, Nielson, US Retail Market Data, 2013

A study carried out by B. Xiong, William Matthews, Daniel Sumner "New Demand for Old Food: the US Demand for Olive Oil" explains the increase in consumption in the US market over the past twenty years in terms of elasticities. B. Xiong et al, conclude that the demand for virgin olive oils have income elasticities higher than one, indicating that the American consumers consider virgin olive oil a luxury product, particularly since it can easily be substituted with non-virgin olive oil. Even so the demand and consumption of virgin and extra virgin olive oil in the US is steadily increasing.

Domestic Production of Olive Oil

Between 2007 and 2013 US production of olive oil increased on average by 50% annually, however recent investment in US olive oil production has slowed in reaction to lower global prices following a succession of unsuccessful crops in Spain and Italy. There has also been valid concern among US producers that their competitive position in the domestic market is threatened by a lack of regulatory oversight.

Even with increased production patterns by a number of countries such as the US, the European exporters remain the dominant players in the international markets of both products of the olive tree and not only due to the favorable growing conditions.

The European Union (EU) provides significant financial support to the producing countries through subsidies put in place by the Common Agricultural Policy (CAP). Hence these nations hold a relative competitive advantage in terms of their natural resources and the financial perspective, allowing them to sustain their leading position in the international competitive landscape, limiting ground for new entrants.

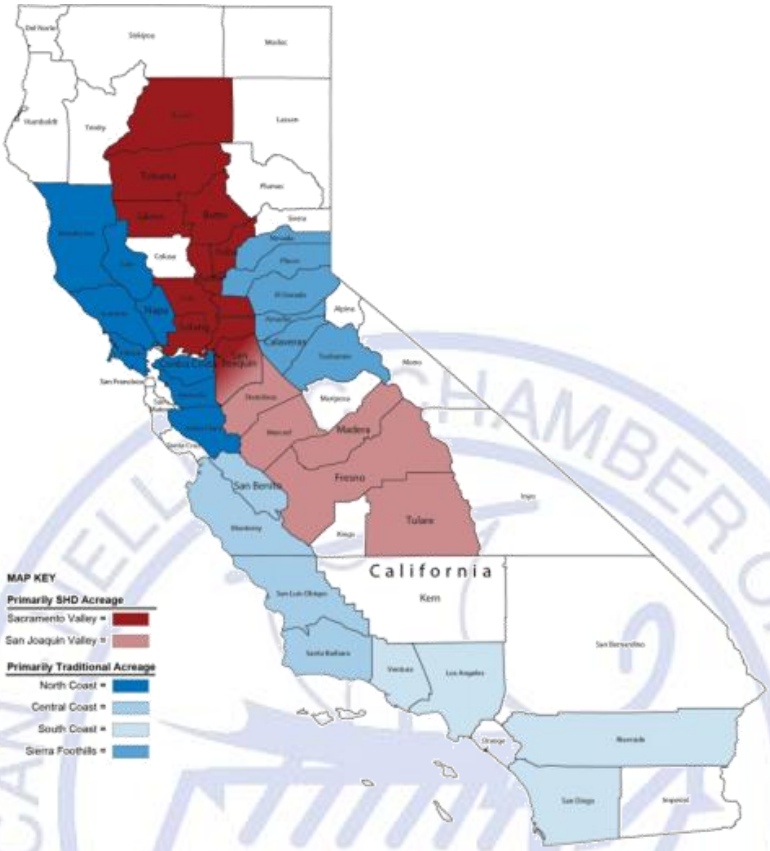
The USA has become the world's second largest olive oil importing country after Italy and its domestic market is therefore dominated by foreign suppliers. The USA imports both table olives and olive oil in significant quantities since it is not a major producer, mainly because its climate is not favorable for their cultivation and the market lacks regulatory oversight. More specifically, imports accounted for 97% of US consumption of olive oil in 2012.

The US growers of the olive fruit (and both its products, are not capable of having strong presence neither in the US domestic supply market nor on an international level because they are at a disadvantage both in terms of climate and expertise. The most important barriers are that they produce on a small scale, which on average is estimated at 40 hectares and have limited government support.

Additionally, the olive tree grows in mild climates and as a result the domestic production of olive oil is concentrated around California, as the weather conditions allow it to be cultivated and growing possibilities in other US states are not favorable. These parameters suggest that the United States will remain a minor producer with only 0.3% of global production and on 3% of its total domestic production. The map below indicates the six major regions of California with the highest production.

- North Coast,
- Central Coast,
- South Coast,
- Sacramento Valley
- San Joanquin Valley
- Sierra Foothills

Figure 26D | Production of the Olive Fruit in California



Source: United States International Trade Commission

The olive crop, which produces a good harvest every second year as was the case in 2006, is also especially sensitive to extreme and heavy weather conditions (such as the rain which can easily wash away the pollen).

Table 6: USA Domestic Supply for Olive Oil, 2008- 2014 (HS Code 1509)								
Category	**Price Point**	**Unit**	**2008**	**2009**	**2013**	**2014**	**CAGR 04-08**	**CAGR 08-13**
Value								
Domestic Production	Processor	000s,$US	508.272	294.259	280.142		1,70%	-11,20%
Net Imports for Consumption	CIF	000s,$US	408.701	343.194	343.512		16,30%	2,10%
Volume								
Domestic Production	Processor	Metric Tonnes	111.528	56.607	77.311	82.500	2,20%	-7,10%
Net Imports for Consumption	CIF	Metric Tonnes	127.651	116.920	103.482	135.550	3,30%	-4,10%
Price Per Kilogram								
Domestic Production	Processor	$US	$4,56	$5,20	$3,62		-0,40%	-4,50%
Net Imports for Consumption	CIF	$US	$3,20	$2,94	$3,32		6,30%	0,70%
Source: United States International Trade Commission								

Table 7 compares the production costs per kilogram for the US and the two largest European producers and Morocco, according to the type of farming employed, indicating the relative higher costs of production. The main characteristics of the olive and olive oil for some of the major producing countries are compared to those of the US domestic supply market in table 8.

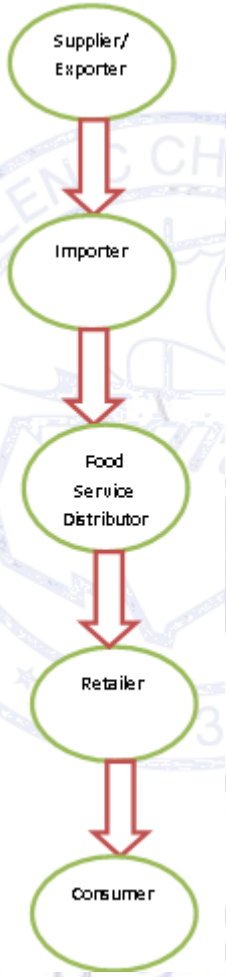
Table 7: Olive oil: Farm-level cost of production by country and production method	
Country and Production Method	**Production Cost (€/kg)**
Spain (SHD)	1.32
Spain (intensive)	1.29 (irrigated)-1.66 (non-irrigated)
California (SHD)	1.43 - 2.02
Morocco	1.61-2.24
Spain (traditional)	1.97 (semi-mechanized-3.06 (hand harvested)
Italy	3.53-5.80
Source: USITC, 2013	

Country	Olive production characteristics	Oil processing characteristics	Oil characteristics	Competitive advantages	Competitive disadvantages
United States	1. Mix of artisanal and modern, mechanized production 2. Majority of production is from Super High Density (SHD) groves	1. Modern and efficient 2. Only a few high-capacity mills	1. High quality extra virgin	1. High quality 2. Growing domestic market 3. High efficient production systems	1. Small scale 2.Difficultly differentiated product due to lack of enforced standards 3. Little government assistance
Spain	1.Mostly semi-mechanized, traditional groves 2. Some large-scale intensive and SHP groves	1.Processing done mostly by grower-owned cooperatives 2. Large scale, efficient mills	1. 35% extra virgin 2. Wide range of extra virgin and lower-grade oils	1. Market power and scale of production 2. Low cost of production 3. Supportive government programs	1. Reliance on bulk market 2. Lack of marketing expertise and production differentiation
Italy	1.Mostly small groves with traditional planting densities 2. Mostly hand harvested	1. Large number of small mills 2. Mix of traditional and modern mills 3. Hub of blending and bottling oil from around the world	1. Mostly extra virgin production 2. Wide range of grades, qualitie, olive varieties and flavor profiles	1. Reputation for high quality 2. Recognition of Italian brand 3. Supportive government programs	1. High cost of production 2. Fragmented supply chain
Greece	1.Mostly small groves with traditional planting densities 2. Mostly hand harvested	1. Large number of small mills 2. Very few bottlers	1. Mostly flavorful extra virgin	1. High quality 2.Supportive government programs	1. High cost of production 2.Poor marketing infrastructure 3. Reliance on bulk market
Morocco	1. Mostly traditional planting densities 2. Mostly hand harvested	1. Large number of small mills 2. Mostly traditional milling techniques	1. One-third extra Virgin 2. Limited volume of flavorful and high-quality oil	1. Proximity and trade preferences with the EU 2.Commercial relationship with US bottler	1. Lack of product differentiation 2. High cost of production 3. Poor quality of traditional production
Tunisia	1. Mostly traditional planting densities 2. Mostly hand harvested	1. Many small mills using traditional techniques 2.Growth in modern harvesting techniques	1. Mild flavor useful for blending	1. Proximity and trade preferences with the EU 2. Export-oriented government schemes	1. Lack of product differentiation 2. Reliance on bulk market

Source: International Olive Oil Council, 2015

3.2. Retail Landscape and Structure

Typical food distribution import channels in the USA are complex. Overall they follow the procedure summarized below.



The two tables below present a summary of the table olives and olive oils in the US retail landscape for 2014 prices at different points of sale.

For olive oil the retail price ranges are compared in the above table for the different types of retail outlets and stores for five large states: Florida, New York, California, Illinois and Texas. The table makes the distinction between identical products sold in the supermarkets and hypermarkets, convenience stores, delicatessens, e-shops and some restaurant in these different states which have been chosen carefully so to be able to compare different types of consumers.

Table 8: Retail Structure for Table Olives

Florida	New York	California	Illinois	Texas	New Jersey
		HYPERMARKETS			
Walmart **Type of Products: Variety** **Price Range:$1.98-4.98(10 oz)**	**Walmart** Type of Products: Variety Price Range:$1.98-4.98(10 oz)	**Walmart** Type of Products: Variety Price Range:$1.98-4.98(10 oz)	**Walmart** Type of Products: Variety Price Range:$1.98-4.98(10 oz)	**Walmart** Type of Products: Variety Price Range:$1.98-4.98(10 oz)	**Walmart** Type of Products: Variety Price Range:$1.98-4.98(10 oz)
Costco Wholesale **Type of Products: Variety** **Price Range:$18.22(70 oz)-19.52(86 oz)**	**Costco Wholesale** Type of Products: Variety Price Range:$18.22(70 oz)-19.52(86 oz)	**Costco Wholesale** Type of Products: Variety Price Range:$18.22(70 oz)-19.52(86 oz)	**Costco Wholesale** Type of Products: Variety Price Range:$18.22(70 oz)-19.52(86 oz)	**Costco Wholesale** Type of Products: Variety Price Range:$18.22(70 oz)-19.52(86 oz)	**Costco Wholesale** Type of Products: Variety Price Range:$18.22(70 oz)-19.52(86 oz)
		Kmart Type of Products: Variety Price Range:$1.79(7 oz)-4.69(10 oz)			
		Target Corporation Type of Products: Variety Price Range:$1.52-4.99(10			
		SUPERMARKETS			
Kroger **Type of Products: Groceries** **Price Range: Varies**	**Kroger** Type of Products: Groceries Price Range: Varies	**Kroger** Type of Products: Groceries Price Range: Varies	**Kroger** Type of Products: Groceries Price Range: Varies	**Kroger** Type of Products: Groceries Price Range: Varies	**Kroger** Type of Products: Groceries Price Range: Varies
Trader Joe's **Type of Products: Groceries** **Price Range:$1.99-3.99 (10 oz)**	**Trader Joe's** Type of Products: Groceries Price Range:$1.99-3.99 (10 oz)	**Trader Joe's** Type of Products: Groceries Price Range:$1.99-3.99 (10 oz)	**Trader Joe's** Type of Products: Groceries Price Range:$1.99-3.99 (10 oz)	**Trader Joe's** Type of Products: Groceries Price Range:$1.99-3.99 (10 oz)	**Trader Joe's** Type of Products: Groceries Price Range:$1.99-3.99 (10 oz)
Safeway **Type of Products: Groceries** **Price Range:$4.99-12.39 (10 oz)**	**Safeway** Type of Products: Groceries Price Range:$4.99-12.39(10 oz)	**Safeway** Type of Products: Groceries Price Range:$4.99-12.39(10oz)	**Safeway** Type of Products: Groceries Price Range:$4.99-12.39(10oz)	**Safeway** Type of Products: Groceries Price Range:$4.99-12.39(10 oz)	**Safeway** Type of Products: Groceries Price Range:$4.99-12.39(10oz)
		Whole foods Type of Products: Groceries Price Range:$1.29-4.99 (10 oz)			
Fairway **Type of Products: Groceries** **Price : $4.99-12.39(10 oz)**	**The Food Emporium** Type of Products: Groceries Price : $2.99-7.19(10 oz)				

Table 9: Retail Structure for Olive Oil

Florida	New York	California	Illinois	Texas
		HYPERMARKETS		
Walmart **Type of Products: Oils** **Price Range: $3.48-9.68 (33.8 oz~1L)**	**Walmart** Type of Products: Oils Price Range: $3.48-9.68 (33.8 oz~1L)	**Walmart** Type of Products: Oils Price Range: $3.48-9.68 (33.8 oz~1L)	**Walmart** Type of Products: Oils Price Range: $3.48-9.68 (33.8 oz~1L)	**Walmart** Type of Products: Oils Price Range: $3.48-9.68 (33.8 oz~1L)
Costco Wholesale **Type of Products: Variety** **Price Range: $14.69 (33.8 oz~1L)**	**Costco Wholesale** Type of Products: Variety Price Range: $14.69 (33.8 oz~1L)	**Costco Wholesale** Type of Products: Variety Price Range: $14.69 (33.8 oz~1L)	**Costco Wholesale** Type of Products: Variety Price Range: $14.69 (33.8 oz~1L)	**Costco Wholesale** Type of Products: Variety Price Range: $14.69 (33.8 oz~1L)
		Kmart Type of Products: Variety Price Range: $3.29 (8.5 fl oz)- 8.99 (17 fl oz)		
		Target Corporation Type of Products: Variety Price Range: $7.59(25.5 oz)-12.79(33.8 oz~1L) Price Range:$1.22-4.99 (10 oz)		
		SUPERMARKETS		
Kroger **Type of Products: Oils** **Price Range: Varies**	**Kroger** Type of Products: Oils Price Range: Varies	**Kroger** Type of Products: Oils Price Range: Varies	**Kroger** Type of Products: Oils Price Range: Varies	**Kroger** Type of Products: Oils Price Range: Varies
Trader Joe's **Type of Products: Oils** **Price Range: $6.99-26.99 (33.8 oz~1L)**	**Trader Joe's** Type of Products: Oils Price Range: $6.99-26.99 (33.8 oz~1L)	**Trader Joe's** Type of Products: Oils Price Range: $6.99-26.99 (33.8 oz~1L)	**Trader Joe's** Type of Products: Oils Price Range: $6.99-26.99 (33.8 oz~1L)	**Trader Joe's** Type of Products: Oils Price Range: $6.99-26.99 (33.8 oz~1L)
Safeway **Type of Products: Oils** **Price Range: $8.69-19.69 (33.8 oz~1L)**	**Safeway** Type of Products: Oils Price Range: $8.69-19.69 (33.8 oz~1L)	**Safeway** Type of Products: Oils Price Range: $8.69-19.69 (33.8 oz~1L)	**Safeway** Type of Products: Oils Price Range: $8.69-19.69 (33.8 oz~1L)	**Safeway** Type of Products: Oils Price Range: $8.69-19.69 (33.8 oz~1L)
		Whole foods Type of Products: Oils Price Range: $7.99-17.39 (33.8 oz~1L)		
Fairway **Type of Products: Oils** **Price Range: $11.99-19.99 (33.8 oz~1L)**				
	The Food Emporium Type of Products: Oils Price : $5.39-15.99 (33.8 oz~1L)			

	CONVENIENCE STORES				
Kroger **Type of Products: Oils** **Price Range: Varies**		**Kroger** Type of Products: Oils Price Range: Varies			
	DELICATESSEN				
Trader Joe's **Type of Products: Oils** **Price Range: $10.35(7 fl oz)-20.99 (16.9 fl oz)**	**Trader Joe's** Type of Products: Oils Price Range: $10.35(7 fl oz)-20.99 (16.9 fl oz)	**Trader Joe's** Type of Products: Oils Price Range: $10.35(7 fl oz)-20.99 (16.9 fl oz)	**Trader Joe's** Type of Products: Oils Price Range: $10.35(7 fl oz)- 20.99 (16.9 fl oz)	**Trader Joe's** Type of Products: Oils Price Range: $10.35(7 fl oz)-20.99 (16.9 fl oz)	**Trader Joe's** Type of Products: Oils Price Range: $10.35(7 fl oz)-20.99 (16.9 fl oz)
Dean and Deluca **Type of Products: Meals that include olives** **Price Range: $12.00(6.7 fl oz)-50.00(16.9 fl oz)**					
	RESTAURANTS				
Olive Garden **Type of Products: Meals that include olive oil** **Price Range: Varies**				**Mediterranean Gardens** Type of Products: Meals that include olive oil Price Range: Varies	**Erini Restaurant** Type of Products: Meals that include olive oil Price Range: Varies
	E-SHOPS				
	Amazon Type of Products: Oils Price Range: $9.99-35.53				

3.3. Key Players

Some of the largest US producers and importers which act as distribution channels of table olives and olive oil are summarized below.

Table 10

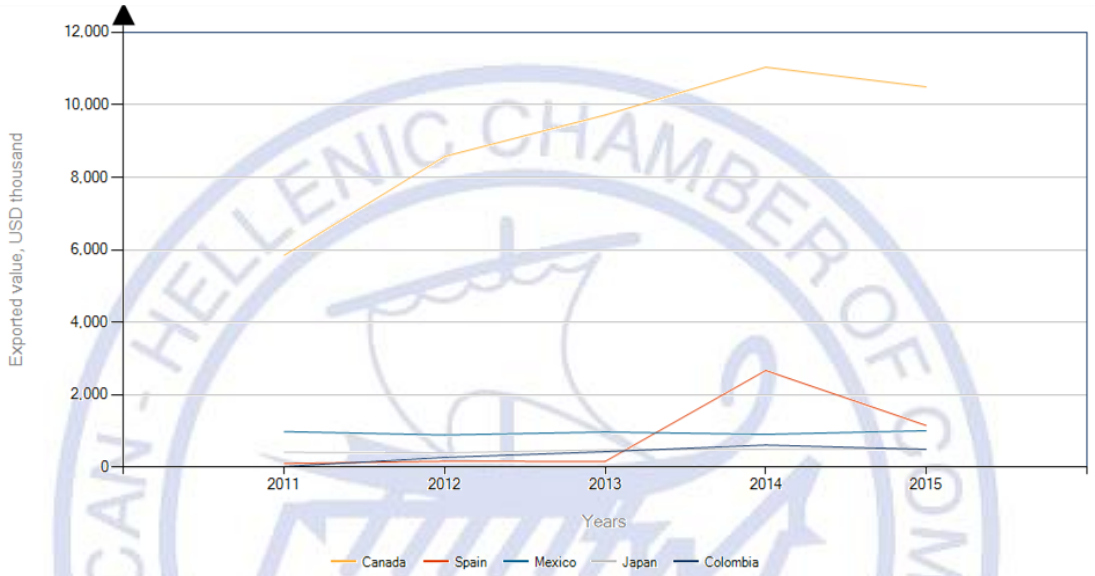
Company Name	State	Trading Product
AGRO SEVILLA USA	VIRGINIA	OLIVES/OLIVE OIL
AGRUSA, INC.	NEW JERSEY	OLIVES/OLIVE OIL
ATALANTA CORP.	NEW JERSEY	OLIVE OIL
BELL-CARTER FOODS, INC.	CALIFORNIA	OLIVES
BLUE PLANET FOODS	ILLINOIS	OLIVES/OLIVE OIL
BORGES USA	CALIFORNIA	OLIVES/OLIVE OIL
BOTTICELLI FOODS LLC	NEW YORK	OLIVE OIL
CENTO FINE FOODS, INC.	NEW JERSEY	OLIVE OIL
COLAVITA USA LLC	NEW JERSEY	OLIVE OIL
D. COLUCCIO & SONS, INC.	NEW YORK	OLIVES
FANTIS FOODS INC.	NEW JERSEY	OLIVE OIL
FOOD SPECIALITIES TRADING LLC	NEW JERSEY	OLIVES/OLIVE OIL
GOYA FOODS, INC.	NEW JERSEY	OLIVES
INTERBUSINESS USA, INC	NEW JERSEY	OLIVES/OLIVE OIL
INTERNATIONAL BAZAAR, INC.	OHIO	OLIVES/OLIVE OIL
ITALFOODS, INC.	CALIFORNIA	OLIVES/OLIVE OIL
OESSE FOODS, INC.	CONNECTICUT	OLIVES/OLIVE OIL
OMEGA FOODS INC.	NEW JERSEY	OLIVE OIL
POLARIS FOODS	CALIFORNIA	OLIVE OIL
POMPEIAN INC.	MARYLAND	OLIVE OIL
SINCO, INC.	MASSACHUSETTS	OLIVES
SUPREME OIL COMPANY	NEW JERSEY	OLIVE OIL
SYSCO CORPORATION	TEXAS	OLIVES/OLIVE OIL
TEE PEE OLIVES, INC	NEW YORK	OLIVES/OLIVE OIL
TRANSMED FOODS	MARYLAND	OLIVES
VIGO IMPORTING CO	FLORIDA	OLIVES/OLIVE OIL

Source: International Olive Council, 2015

3.4. USA Exports to the World

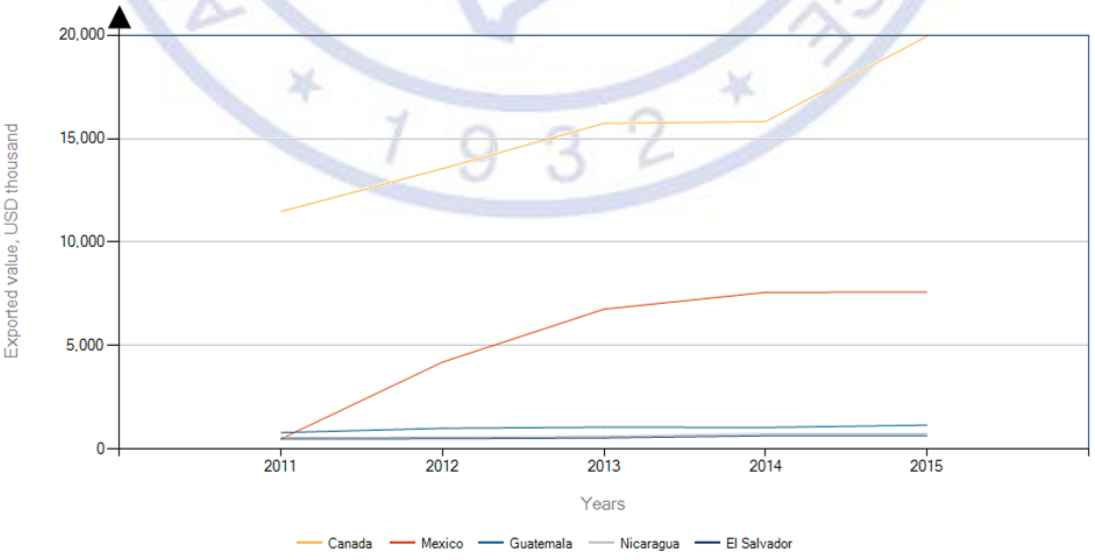
The United States exports a very limited proportion of its overall production to third countries, primarily to Canada and Mexico with which there are no barriers to trade and free trade is enhanced through the **North Atlantic Tree Trade Agreement** (NAFTA.). Neighboring countries in South America also rely on trade with the US for table olives and olive oil at much lower quantities.

Fligure 27A | Table Olives (HS Code 200570) Top 5 Importing Countries from the US



Source: International Trade Center (ITC)

Figure 27B | Olive Oil (HS Code 1509) Top 5 Importing Countries from the US



Source: International Trade Center (ITC)

Chapter 4 | The European Mediterranean – Basin and Greece

4.1. Productivity Capacity & Domestic Consumption

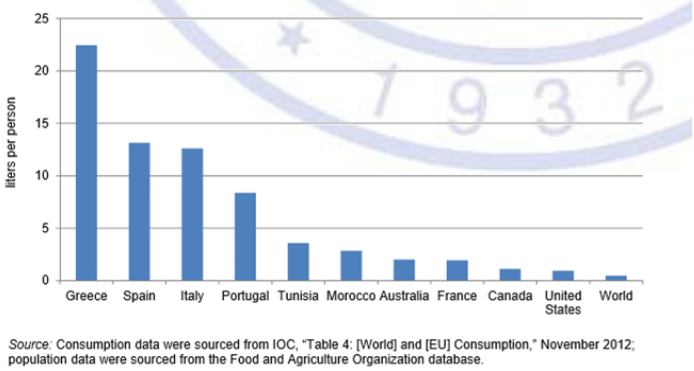
Europe

Europe's Mediterranean countries traditionally remain the world's largest producers and exporters, supplying approximately 97% of the world's olive oil. The Mediterranean climate which has mild winters and long, warm and dry summers allows the olive tree to grow abundantly in this specific area of the world.

According to Eurostat in 2007 there were 1.9 million farms with olive groves only in the EU, a large proportion of them being small sized farms. Some of the areas where the olive plant is primarily grown include Calabria (Italy), Andalusia (Spain which produces more than 80% of the country's production), Crete and the Peloponnese (Greece). Spain produces over 60% of the olive oil produced in the EU and to a great extent this is due to the varied degree of organization which differs amongst EU member states and has the highest organizational level of approximately 70%, while Greece's production is particularly small in farm size and fragmented which lack professional guidance and therefore do not gain from potential economies of scale. There capacities usually do not exceed 170 tons. The olive oil farms are numerous however the majority of the oil that manages to reach the national or international markets is a small number of large companies.

The Italian and Portuguese markets also have significantly low levels of organization which are as low as 5% in Italy. Europe is also the world's largest consumer since the olive crop is an important component of the local diet. The majority of olives are grown and consumed in Spain, Greece, Portugal and Italy, as is the case for olive oil. The figure 27C presents the annual average consumption per capita for selected oil producing countries for the period 2007 – 2012, sourced from the Food and Agriculture Organization (FAO) database.

Figure 27C | Olive Oil Annual Consumption per Capita 2007 – 2012



Source: Consumption data were sourced from IOC, "Table 4: [World] and [EU] Consumption," November 2012; population data were sourced from the Food and Agriculture Organization database.

Amongst all the countries presented above, Greece clearly has the highest consumption rate per capita, making the Greek olive oil market the one with the highest consumption amongst its major European competitors at an average of 16kg annually.

Source: International Olive Council, 2012

The table summarizes the EU olive oil production, consumption and trade patterns for the time period 2000 – 2013.

Table 11 : EU Olive oil supply consumption and trade (2000-2013)
Unit: 1,000mt

-	2000-01	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Production	1,940.5	2,118.5	1,939.0	2,224.5	2,209.0	2,444.0	1,739.0
Extra-EU imports	126.8	160.8	94.9	75.9	79.0	85.6	90.9
Consumption	1,835.1	1,865.9	1.856.0	1,846.0	1,866.5	1,916.9	1,856.9
Extra-EU exports	291.0	357.0	37.2	440.4	481.3	509.1	542.3

Source: International Olive Council (IOC) , 2012

Greece

As a whole the Greek food and beverages industry accounts for 2€ billion of exports, most of which are destined to other European countries such as Italy (22,2%), Germany (17,6%) and the United States (5,4%). Both table olives and olive oil are amongst the country's most important agricultural exports. The industry relies heavily on its agricultural productivity and therefore is responsible for the employment of over 10% of the country's active labor force.

The food and beverages industry as a whole presents certain advantages for investors. These include abundance in raw materials, relatively low operational costs, relatively easy access to emerging growth market particularly because of the popularity of the Mediterranean diet.

Greece has more than 120 million olive trees, more than 12 per Greek citizen and produces 120,000 tons of table olives per year. Olive oil production annually exceeds 300,000 tons more than 70% of which is labeled as extra virgin olive oil which is internationally gaining market share.

The organic food sector is an important niche market and opportunity for the traditional olive industry, as awareness is exploding and products are beginning to be sold under labels which certify them as "organic" and are considered of a high standard. Overall only 3.94% of the farmland in Greece is devoted to organic farming (SIPPO, The Organic Market in Europe). The number of hectares devoted to the production of organic olive oil according to research (Enterprise Greece, 2009), has risen from 5,500 in 1994 to more than 38,250 in 2007 and the number of hectares devoted to organic olives stands at more than 13,671. The production of organic olive oil has more than tripled since 1999 and in 2006 was well in excess of 3,200 tons, of which two thirds was exported.

The costs of production in Greece are relatively high due to the small size of the olive farms but also due to the use of older and not so efficient farming techniques and production processes. After 2007 Greece has slightly decreased production costs are a result of the significant decrease in the wages per hour (approximately 15%) in combination with higher labor productivity.

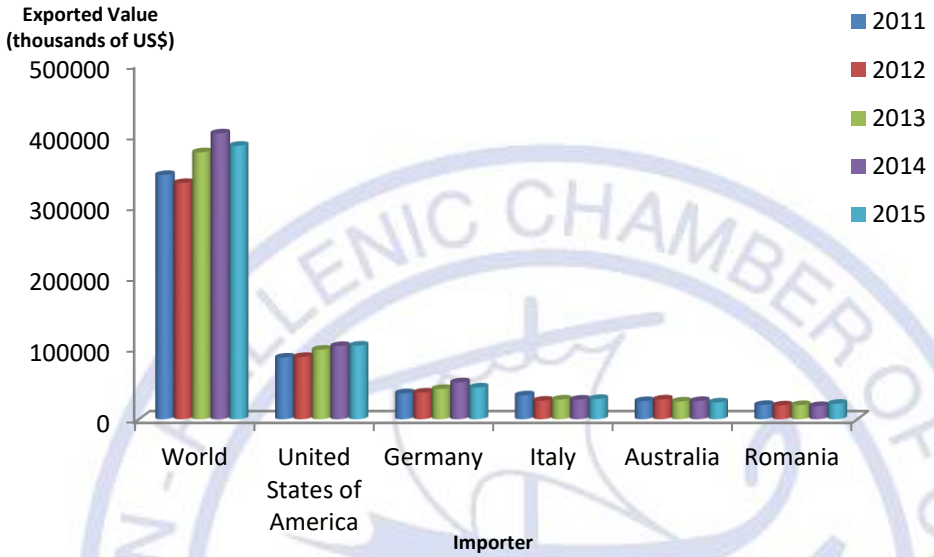
Nevertheless, Greece has the highest subsidies of 0.33€ per kg, compared to that of Italy and Spain, a value which is amongst the highest amongst the EU member states. They contribute to a significant share of the revenue compared to the main competitors. In 2020 the subsidies are expected to decline significantly compared to their values for the period 2007- 2012 due to the recent CAP reforms and this is expected to decrease profits. On average Greece had a direct subsidy of €384/ha in 2013 on cultivated land for financial support from the CAP and this is expected to fall to 3.5% in 2019.

On average profitability of an olive farm today is approximately €0.82 per kg of olives which is higher to that of Spain (€0.58). Together the Greek oil producing companies have an overall value of €0.7 million compared to that of Italy which has an €2 million and Spain which has a total value of €7 million. In order for Greek producers to become more competitive on a local and international level after these reforms, higher concentration and vertical integration is needed in the sector. In the long-run, this will result in lower production costs and the possibility for Greek olive oil to switch from exporting bulk to branded olive oil.

4.2. Market Supply & Exports

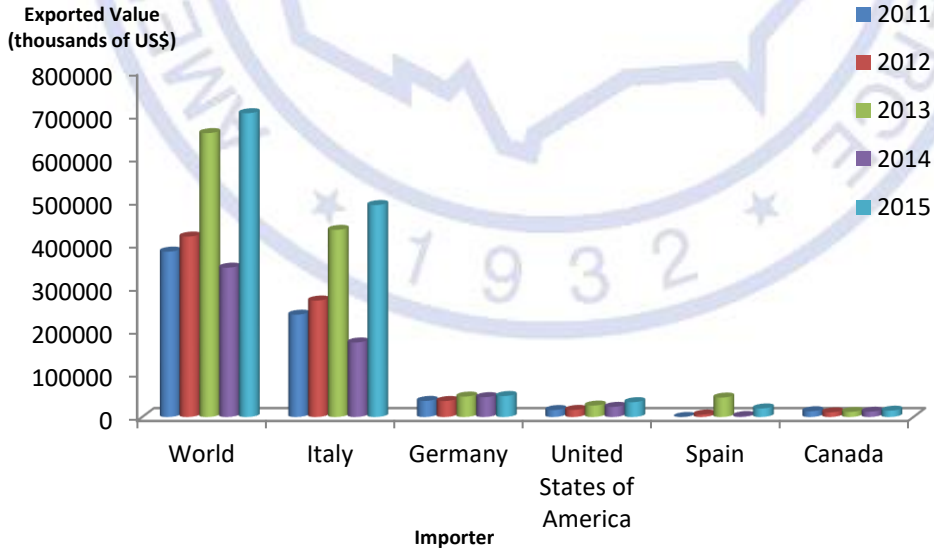
Total Exports to the World

Figure 28A | Major Greek Exports of Table Olives to the International Markets



Source: Trade USA- US CENSUS BUREAU – UN COMTRADE

Figure 28B | Greek Exports of Olive Oil to the International Markets



Source: Trade USA- US CENSUS BUREAU – UN COMTRADE

The United States is the primary importer of Greek table olives & the 3rd importer of Olive Oil

4.3. Key Greek Players in the US Market

The supply side of the branded olive oil market is dominated by large multinational companies. The Spanish company Deoleo alone covers 22% of the world market which is equal to about 0.4 million tons. Through a series of acquisitions Deoleo with Italian Bertolli, Caparelli, Sasso and the Spanish Carbonell and Koipe, is now the world leader for sale in bottled olive oil worldwide. For the Greek market there are two main companies which cover nearly 60% of the total domestic market for olive oil, namely Elais-Unilever and Minerva, however most other producers and traders in this field are small.

Greek Companies of table olives and olive oil which are present in the US market include:

Table 12: Company Name	Production Region	Trading Product
AGROSPARTA	SPARTA (Lakonia)	OLIVES
AGROVIM S.A.	KALAMATA	OLIVES/OLIVE OIL
CH. GIANNOULIS S.A.	CHANIA(Crete)	OLIVE OIL
GAEA PRODUCTS S.A.	ATHENS	OLIVES/OLIVE OIL
GEORGOUDIS S.A.	VOLOS	OLIVES
GREEK LAND FOODS LTD.	ATHENS	OLIVES/OLIVE OIL
IDEAL SA "MAVRIDESCHIMOS" EXPORT COMP.	PAELO FALIRO	OLIVES
INTERCOMM FOODS S.A.	LARISSA	OLIVES
KARPEA S.A.	NEA ERYTHRAIA	OLIVES/OLIVE OIL
KONSTANTOPOULOS S.A.	KATERINI	OLIVES/OLIVE OIL
SIOURAS A.S.	VOLOS	OLIVES

Source: International Olive Council, 2015

Chapter 5 | Consumer Trends

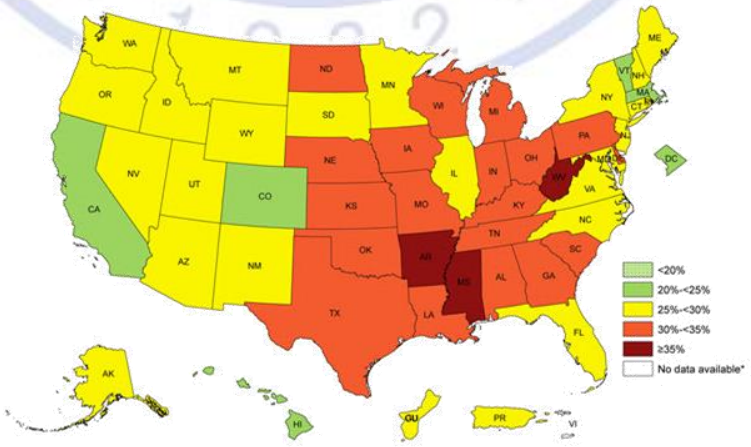
5.1. Consumption Trends

Consumers have a vital role in the overall success of the food market in the US and therefore are also important in the success of the table olive and oil markets which are consumer-driven and based on demand.

The Food Guide Pyramid (FGP) and other similar dietary guidance materials are therefore greatly influential in the decision-making process for consumers but not the only. Americans today are slowly becoming increasingly familiar with the importance of maintaining a healthy diet and lifestyle and as a result are adjusting their preferences. As a result, both US markets have significant opportunities for further expansion and are also relatively open to new entrants particularly from the Mediterranean basin. The following are some of the most influential factors which will encourage the US consumer to become a consumer and potential buyer of the olive tree products.

Health Concerns and Obesity: The main reason for the increasing demand for table olives and the olive oil has been the health benefits that come from the adoption of the Mediterranean diet and the decrease of health risks which come with it. In the US and globally there is an increasing amount of research been done and as a result it is contributing to the overall awareness of the US consumers.

Obesity in the USA has been a major concern and a public health issue over the years. Since 1970s the obesity rates in the USA have more than doubled. According to a study by Ogden et al. 2014, over two-thirds (68,5%) of adults in 2011 -2012, in the USA are overweight (according to data collected from the National Health Survey and Nutrition Examination Survey (NHANES)) and about 25% of 2 – 5 year olds. The same study survey by Ogden et al., suggests that racial-ethnic disparities exist and that Hispanic or Black ethnic groups have higher rates of obesity compared with respective white non-Hispanic males and females. The map below presents an overview of the obesity rates in the US states.



Source: Behavioral Risk Factor Surveillance System, CDC

Lifestyle and Life stage Complexity: according to a study by Senauer et al., 1991, lifestyle is an important which affects consumer decisions because it indicates the way in which people choose to express their identity. Food and nutrition is part of this factor and the extent to which they will attempt to meet the FGP requirements. The consumer demand for both olive oil and table olives are therefore also influenced by the lifestyle decisions which consumers make.

Income: given that the majority of table olives and olive oil supply in the US market are imported and therefore relatively more expensive for the consumer, this factor is of vital importance to determine consumer demand. Because of the numerous varieties (in terms of tastes and price) which exist in the US importing market, this maybe one of the less influential barriers for consumption. Extra virgin olive oil is comparably more expensive than the not so pure varieties. In this sense access is not restricted for consumers.

Some other influential factors are listed below; they are also key to understanding and overcome the existing barriers and encourage US consumers to adjust their diet so that they are in line with the recommendations of the FGP:

Other Economic & Political Factors (recent economic recession/ European Debt Crisis)

Age Complexity

Gender Complexity

Familiarity and Convenience

Cultural factors

Psychological factors

Food preferences and Habits

Motivation and Reaction to Change

5.2. Digital Footprint

In order to gain a complete understanding of the US market for both imported products of the olive tree, this section uses a Google Trend analysis to capture recent preference patterns of the US consumers during 2014 and preceding years.

Google Trends calculates the number of searches that have been done by dividing the number of queries for the keyword, by the total number of Google search queries. The results of which can be grouped according to region, state, city or across time and the results are updated on a daily basis. There may be some inaccuracies which may occur (mainly including sampling issues and approximations) which have to be taken into consideration when the commentary is done. It is also important to note that the values are relative and not absolute (Reference: http://whatis.techtarget.com/definition/Google-Trends).

Key and related words of the product categories of table olives and olive oil are searched using this electronic method amongst the totality of the States or cities, as well as across time. This method is particularly indicative of overall preferences in the US market because it captures the largest major of the US population, which regularly uses the internet as an efficient means to discover products of interest. It is worth having in mind that the minority of US consumers which do not use electronic means to research the market are not represented in the population sample.

The overall trend seems to support the previously mentioned presumption that US consumers are becoming increasingly aware of the health benefits and nutritional values related to the Mediterranean diet and are therefore they trend to research and obtain a higher demand and "willingness to pay" for related products.

Figure 29 | «Mediterranean Diet» Empirically

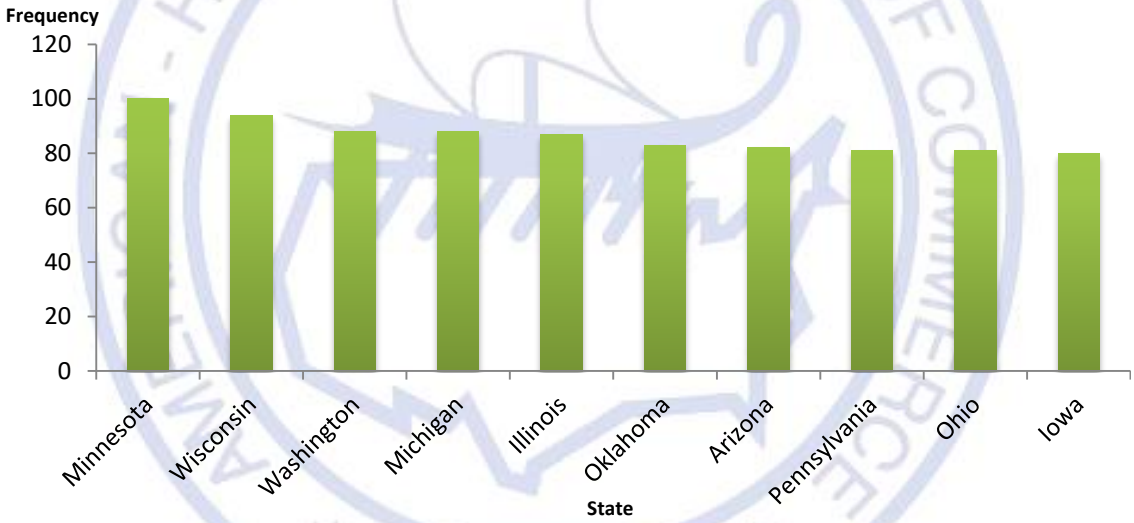
Source: Google Trends, 2015

Over the totality of the USA, the term Mediterranean diet presents a high point in 2013 but in the following years the term was not so commonly searched. The overall trend has a positive pattern with smaller peaks which again are identified in the middle of the annual cycle.

Figure 30 | «Green Olives» Search in the USA Geographically

Source: Google Trends, 2015

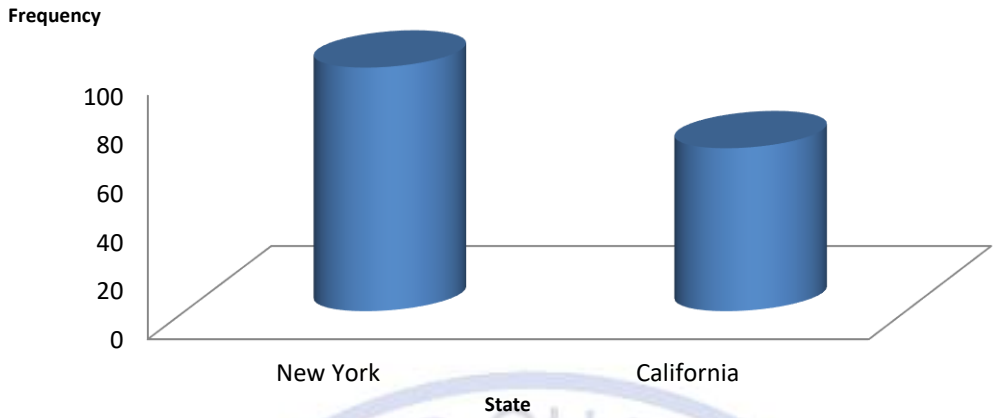
Figure 31 | «Green Olives» Search by State



Source: Google Trends, 2015

The US consumers are highly acquainted to the green olive since it is also the type which is domestically produced in the state of California. Green olives are also imported to the US in large quantities from Spain and therefore it is reasonable to observe an increased search for the term "green olives". The map of the US states above indicates with a darker shade of blue the states where the consumer trends have a higher "willingness to search or to buy" green olives and therefore have a potentially higher purchasing power.

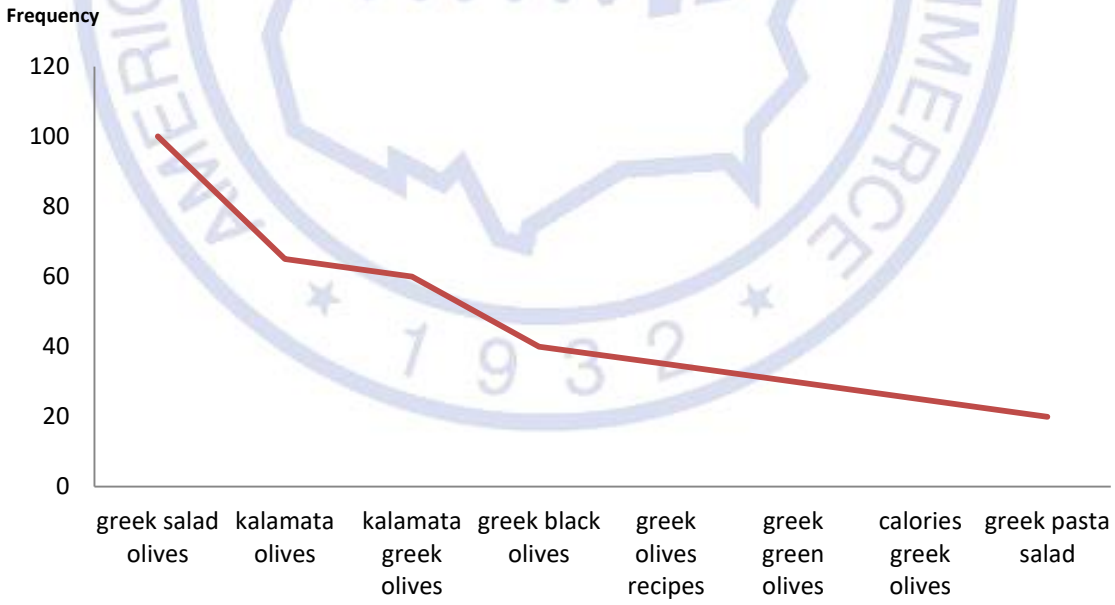
Figure 32 | Search for «Pitted Olives» in New York and California



Source: Google Trends, 2015

The graph presented above explains that there is an increased tendency to search the term "pitted olives" in New York and California, compared to the rest of the states. The results show that the average resident in New York and California is likely to search the market for pitted olives, which can be taken as points of reference for the rest of the US market.

Figure 33 | Rising Search for «Greek Olives» 2010 - 2015

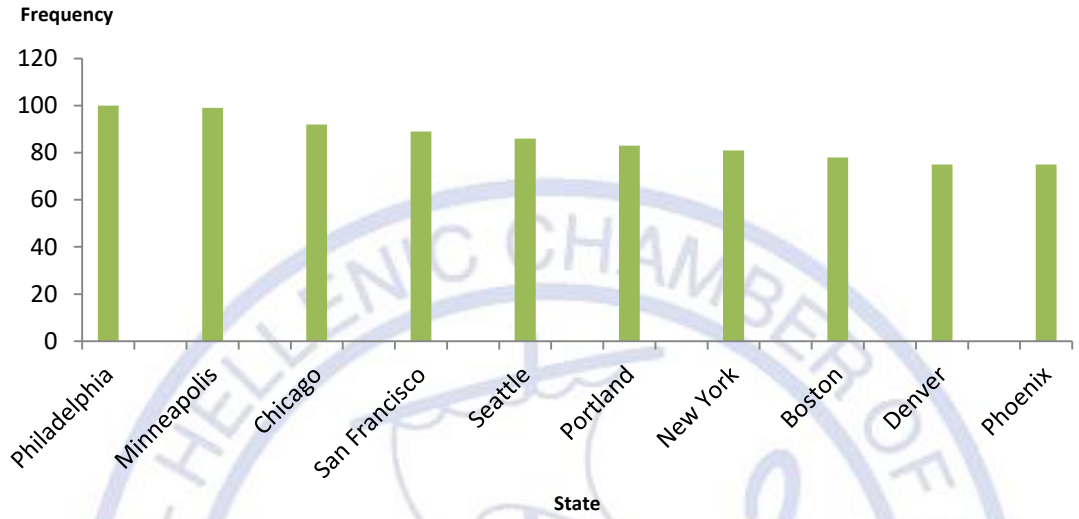


Source: Google Trends, 2015

Amongst all the US consumers during the past five years there has been an increase in the awareness for Greek olives in particular. When searching this term with a variety of key related words as in the figure above, clearly consumers primarily make a direct connection with the Greek salad. Additionally the origin of the olives is of primary

important to the potential consumers and buyers, because as the above results indicate the olives from Kalamata have a good name not only in Greece but also in the international market and are generally preferred.

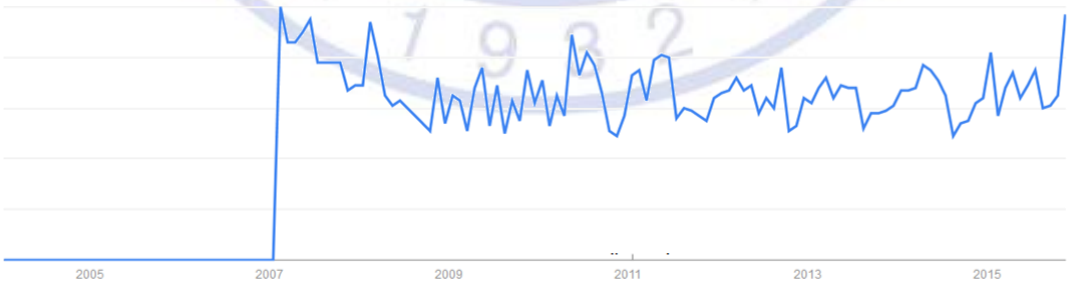
Figure 34 | «Greek Olives» by State



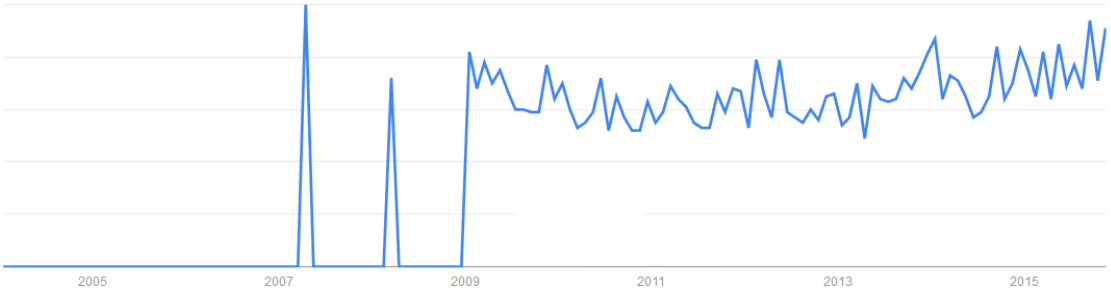
Source: Google Trends, 2015

The above figure illustrates the results for Greek Olives by state and suggests that the residents of Philadelphia and those of Minneapolis are highly likely to search the term according to Google Trends. A possible explanation of this is because of the particularly large Greek communities in these states.

Figure 35 | A «Greek Olives» and B «Spanish Olives» Empirically



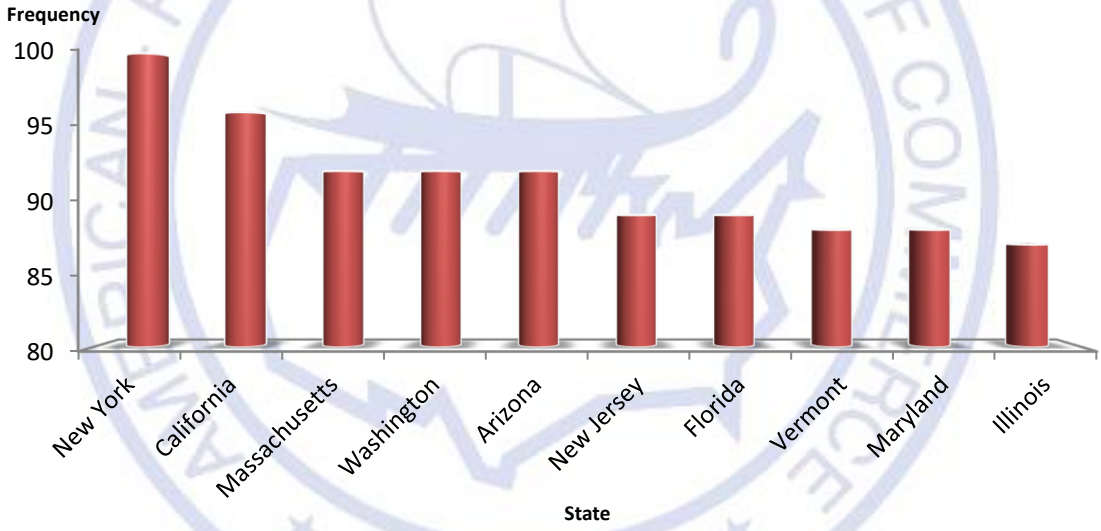
Source: Google Trends, 2015



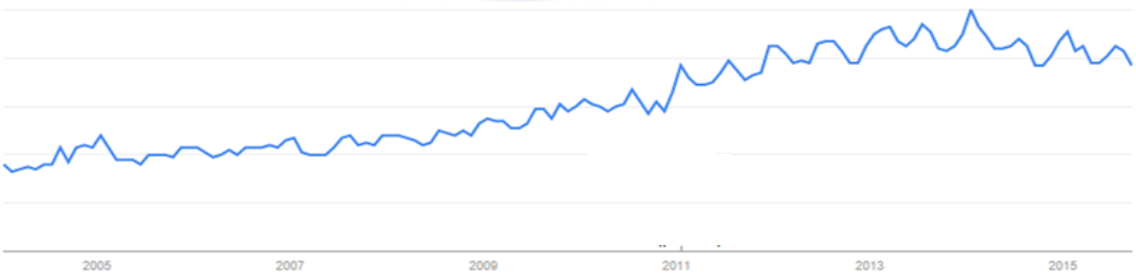
Source: Google Trends, 2015

The last two figures above make a comparison for the search of Greek vs. Spanish olives for the period 2005 -2015. Both markets have a strong presence and a high awareness rate indicating that the US is a market with numerous potential consumers which is worthwhile investigating for producers. Another aspect of this comparison indicates a high level of competition within the US market for table olives.

Figure 36 | «Olive Oil» by State



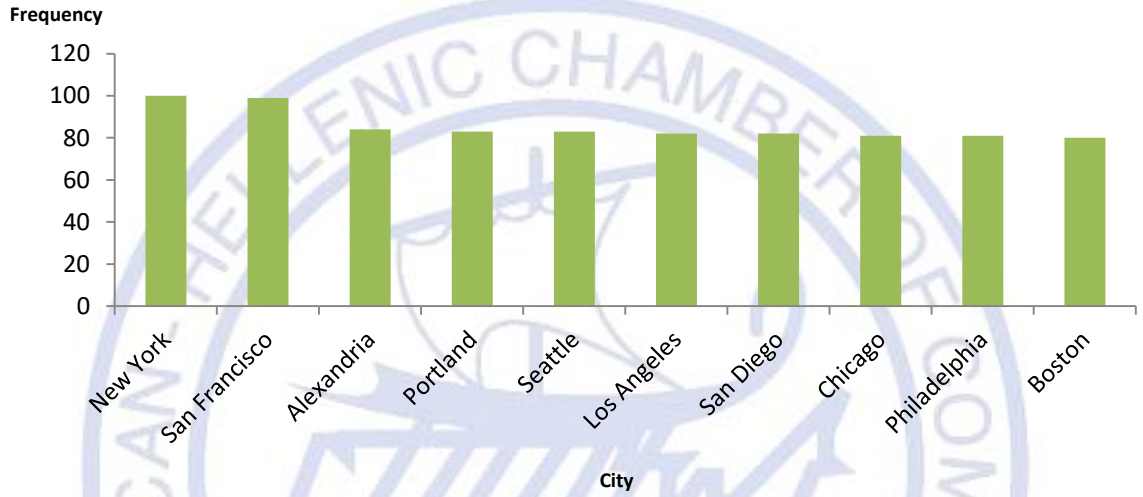
Source: Google Trends, 2015



Source: Google Trends, 2015

According to the search results of the olive oil, New York and California markets seem to be more accustomed to this product. It is rational to assume that because California is the largest US producer of olive oil; its population has better access to the product. As for New York it definitely represents a market that international specialty foods, particularly because it hosts the Fancy Food Show every year. It is New York is also the state where the world's most known "International Olive Oil Competition" takes place. Searching olive oil across the past ten years a positive linear trend is clearly identified.

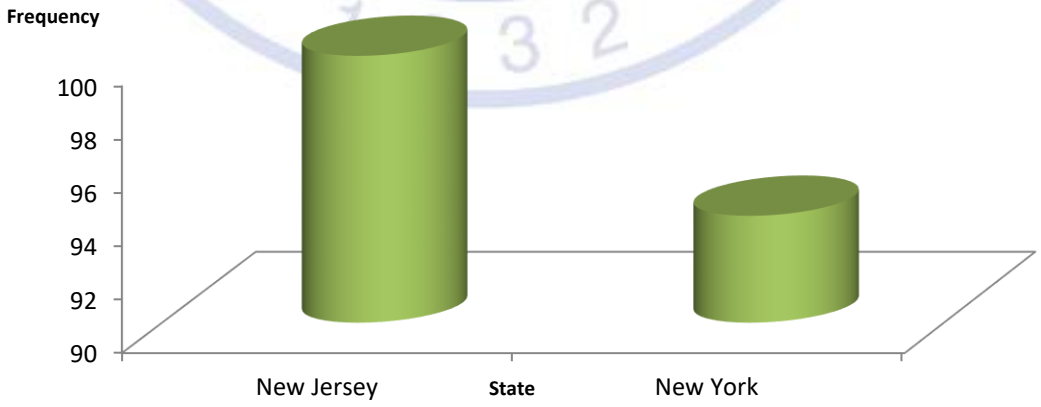
Figure 37 | «Olive Oil» by City



Source: Google Trends, 2015

Searching the term olive oil by US city, it is interesting to note that the cities where consumers are increasingly interested in olive oil are the ones which are found on the coasts.

Figure 38 |«Virgin Olive Oil» by State



Source: Google Trends, 2015

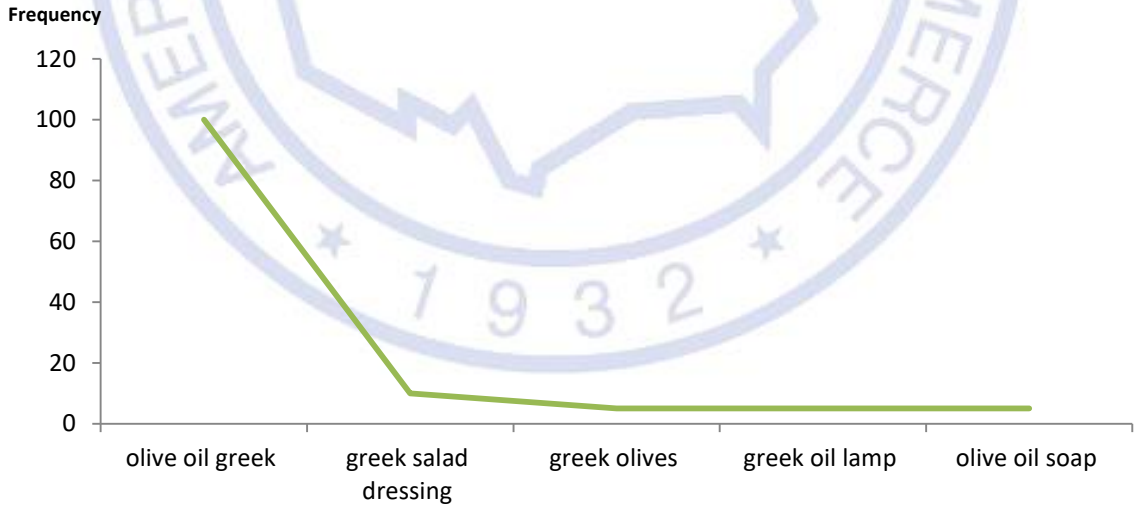
Virgin olive oil seems to be unexpectedly high in New Jersey which maybe a surprise, however on the other hand its geographical location is relatively close to New York, where according to the above graph virgin olive oil is also popular.

Figure 39 | «Organic Virgin Olive Oil» in the USA

Source: Google Trends, 2015

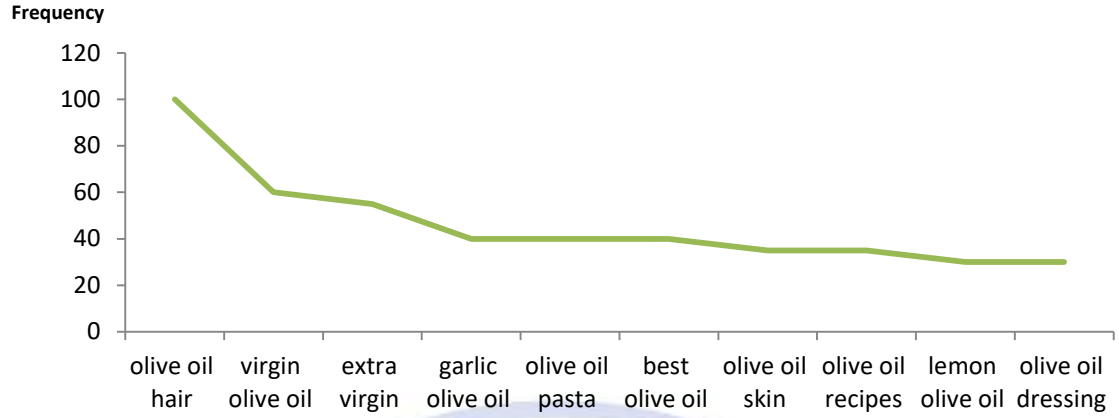
The results for the organic virgin olive oil search in the US as a whole show that the majority of the Google searches or this product are made in the state of California, which is also a logical assumption since it is has the unique advantage of being the largest producing state in the domestic market.

Figure 40 | «Greek Oil» with Related Keywords



Source: Google Trends, 2015

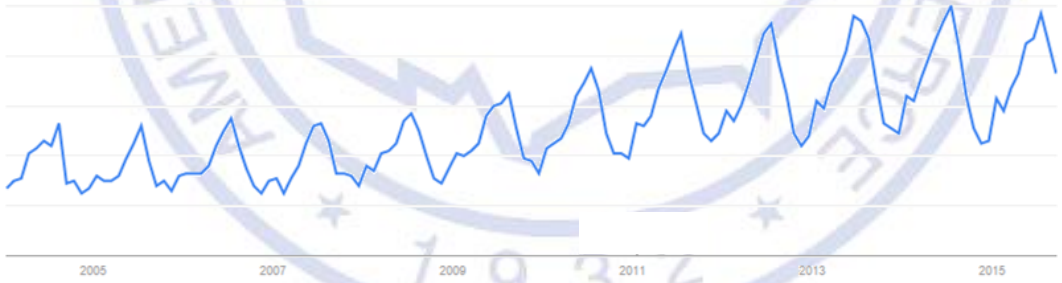
Figure 41 |«Olive Oil» in the USA



Source: Google Trends, 2015

The popularity of Greek oil as a product overall in the United States is more often researched as a term on its own and not under a sub-category or a related word as the results above indicate. This means that there is an increasing potential for the presence of Greek olive oil in the US supply market. When searching the term in combination with food related keywords as indicated above the results show a positive attitude of US consumers towards olive oil and its health benefits.

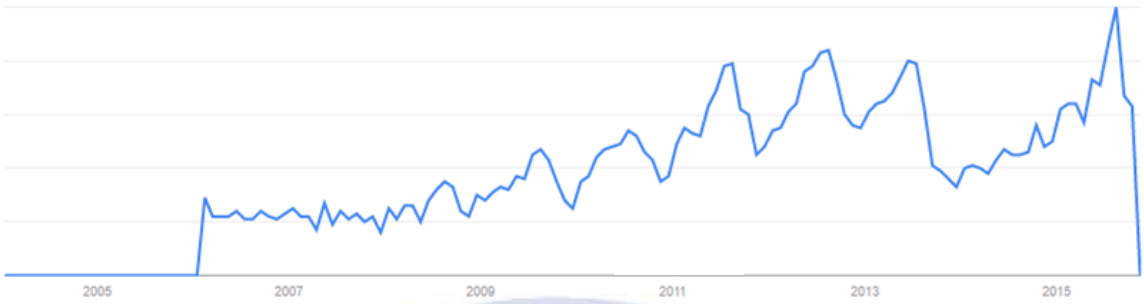
Figure 42 |«Greek Salad» Empirically



Source: Google Trends, 2015

One of the most well-known Greek specialties internationally, is the Greek salad which has olive oil as a main ingredient for its dressing. Searching this keyword empirically over the last 10 years gives a positive trend with a cycle that peaks in the summer months, indicating an increased familiarity and interest of the Mediterranean diet and its benefits. The results for Pizza margarita are also indicative of such a trend, even though the pattern does not show such a systematic consumer pattern and its original Italian recipe contains basic ingredients of the Mediterranean diet such as olive oil and tomato sauce.

Figure 43 | «Pizza Margarita» in the USA



Source: Google Trends, 2015

Chapter 6 | Export Kit

Food Facility Registration (US FDA)

Facilities that manufacture, process, pack or hold food that is intended for human or animal consumption in the United States must register with FDA before beginning these activities. The registration requirement applies to any facility that conducts these activities, unless a facility is specifically exempted.

Requirements governing food facility registration:

- Public Health Security and Bioterrorism Preparedness and response act of 2002 (Bioterrorism Act)
- 21 CFR section 1.225
- Food Safety Modernization Act (FSMA)

Labeling (US FDA)

Food manufacturers are responsible for developing labels (including nutrition information) that meet legal food labeling requirements, first and foremost, labeling of FDA-regulated food products must be truthful and not misleading. Proper labeling, including nutrition labeling and labeling or the major food allergens, is required for most prepared foods.

Note| Among labeling requirements is a requirement that packages and containers of food products sold in US interstate commerce bear labels in English that include specific information

Requirements governing the labeling of foods

- Federal Food, Drug, and Cosmetic Act (FFD&C Act)
- Fair Packaging and Labeling Act
- Nutrition Labeling and Education Act
- FDA's regulations on Food labeling – 21 CFR 1O1

Prior Notice of Imported Food (US Food)

The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (the Bioterrorism Act) directs the Food and Drug Administration (FDA), as the food regulatory agent of the Department of Health and Human Services, to take additional steps to protect the public from threatened or actual terrorist attack on the US food supply and other food-related emergencies.

Along with other provisions, the Act requires that FDA receive prior notification of food, including animal feed that is imported or offered for import into the United States. Advance notice of import shipments allows FDA, with the support of the US Customs and Border Protection (CBP), to target import inspections more effectively and help protect that nations; food supply against terrorist acts and other public health emergencies.

The FDA Food Safety Modernization Act (FSMA) signed January 4th, 2011 aims to ensure the US food supply is safe by shifting the focus of federal regulators from responding to contamination to preventing it. On May 5, 2011 the FDA published an interim final rule requiring that a person submitting prior notice of imported food, including food for animals, to report the name of the country to which the article has been refused entry. The new information can help FDA make better informed decisions in managing potential risks of imported food into the United States.

Quality Services

There are no standards or regulations which are mandated for table olives and olive oil, other than those that cover all foodstuffs, concerning health regulation and other similar concerns. Quality control for table olives and olive oil is typically managed by the processor, who will manage to supply they receive from growers in a manner that is most conducive to an end needs of their customer – be that in foodservice or retail. For example, processors in California will deduct about $65 per ton from prices paid to growers if the product they deliver contains between seven to ten percent of fruit which has to be culled due to discoloration, being broken, severely bruised, diseased or insect infected. I the cull rate I above ten percent then the deduction rises to approximately $130 per ton.

- ISO 22000
- HACCP
- IFS
- BRC

Kosher Procedure

As it says in the German, Man ist was man isst! Man is what man eats. The word kosher is familiar and, at the same time, foreign. One may think of strict rules and religious regulations.

In Hebrew "Kashrus", from the root kosher (or "kasher"), means suitable and/or "pure", thus ensuring fitness for consumption. The laws of "Kashurs" include a comprehensive legislation concerning permitted and forbidden foods. These are several aspects to these dietary rules. We will consider each aspect in turn.

All products that grow in the soil or on plants, bushes, or trees are kosher. However, all insects and animals that have many legs or very short legs are not kosher. Consequently, vegetables, fruit and other products infested with such insects must be checked and the insects examined. A vegetable prone to insect infection (e.g. cauliflower) must be carefully examined.

Certain laws apply specifically to the planting and sowing of vegetables, fruits and grains. Hybridization of different species: one may not sow two kinds of seeds on a field or in a vineyard (Lev.19:19/ Dtn. 22:19)

Forbidden fruit: fruits from trees planted within the past three years may not be eaten. (Lev. 19:23) New grain: Biblically, no new grain may be eaten, or bread baked from it, before one brings an "omer" of the first fruits of the harvest on the second day of Passover (Lev. 23:14)

The process of kosher certification has been radically affected by deep changes in the food industry and by the fact that more than 80% of the products offered by the industry contain pre-processed ingredients. Industrialization presents marvelous opportunities, but the inexorable pace of change in industrial procedures and the complexity of foodstuffs and ingredients also present significant challenges for the kosher certification process.

KIR has risen to these challenges in the course of more than fifty years' experience with food technology.

Import Restriction

Table olive produces are afforded a greater level of protection by US authorities. Depending on the extent of processing, import duties applied to green table olive in brine, range from 3.7 cents per kilogram up to 8.6 cents per kilogram- with more heavily processed olives attracting higher rates. For black olives, the rates range from 9.3 cents per kilogram up to 10.1 cents per kilogram. As with olive oil, the European Union subsidizes exports of table olives to the value of $135 per ton and also assists with subsidies for storage of olives as well. These subsidies remain in place up to 2013, when as with olive oil there is expected to be a decrease in subsidies of around 20 to 30 percent. There are presently no import duties levied in Canada on table olives.

Country of Origin

In 2009, the US Department of Agriculture issued rules in relation to the country of origin status of perishable agricultural commodities, such as fresh meat and produce. However, these rules did not cover olives or olive oil. as such the only country of origin compliance that applies for exports to the USA is governed by the Tariff Act of 1930 which states that products entering the USA must be labeled with their country of origin and accordingly, in the case of table olives and olive oil must indicate where the table olives were sourced from, and not just the country where the olives were process or packaged. However, this information is usually provided in very small print in labels and packaging, it is quite legitimate for Spanish herbs, for example to be shipped to Italy for packaging and then exported to the USA and sold as Italian herbs. In Canada, the rules are even les transparent. There is no need to indicate the name of the country of origin where the table olives or olive oil were prepared or processed as long as the name of the Canadian importer prefixed by the statement "imported by" or the foreign producer is detailed.

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