



XI Congreso Internacional de la AEHE
4 y 5 de Septiembre 2014
Colegio Universitario de Estudios Financieros (CUNEF)
Madrid

Sesión / Session: *Brand and Its History: Economic, Business, and Social Value*

Título / Title: *Patterns of Export Marketing prior to World War II: The Case of Olive Oil*

Autor-s / Author-s: *Ramon Ramon-Muñoz*

Filiación académica /Institution: University of Barcelona, CEAC & XREPP

Dirección electrónica de contacto / e-mail: ramon@ub.edu

PATTERNS OF EXPORT MARKETING PRIOR TO WORLD WAR II: THE CASE OF OLIVE OIL

Ramon Ramon-Muñoz
(University of Barcelona, CEAC & XREPP)*

Paper prepared to be presented at the
11th International Congress of the Spanish Association of Economic History,
Madrid, CUNEF Business School, September 4th and 5th, 2014

Draft June 2014
Please, do not quote without author's permission

Abstract

Drawing on a variety of sources, this paper investigates the international marketing of olive oil prior to World War II. It documents the existence of well-differentiated patterns of export marketing across foreign markets. In particular, it shows that exporting firms made an increasing use of packaging, branding and advertising techniques when the product was exported to the other side of the Atlantic, whereas the opposite was true in the case of the Old Continent. It explores the reasons for such a difference in behaviour and, consequently, discusses the factors that might explain the expansion of modern export marketing in foreign markets for olive oil prior to World War II. A contribution of this paper is to show that foreign marketing strategies of exporting firms can be better understood by taking into account a relatively high number of factors, such as first globalization forces, patterns of consumption and demand, distribution systems, commercial policy and brand (and consumers') protection legislation in importing markets.

(*) *Affiliation:* University of Barcelona (UB) | Research Centre in Economics and Economic History 'Antoni de Capmany' (CEAC) | Network of Reference in Economics and Public Policies (XREPP) | *Corresponding address:* Department of Economic History and Institutions, Faculty of Economics and Business, University of Barcelona | Diagonal, 690 | 08034-Barcelona | E-mail: ramon@ub.edu | Tel: ++34 93 403 96 38 | *Acknowledgements:* This research has benefited from the financial support of the Spanish Ministry of Science and Innovation through the project HAR2012-33298 (MINECO). The author also acknowledges the support by XREPP, launched by the Generalitat de Catalunya, and CEAC.

1. Introduction

In the nineteenth and early twentieth centuries, marketing techniques experienced dramatic transformations. In food and drink, one of the most important changes was that producers and traders began to package, brand and advertise (either in national markets or in foreign markets) the products they manufactured and traded. These processes have been well documented and constitute central factors in the emergence of modern marketing, a research area that is attracting a growing interest among historians and economists.¹ Nevertheless, there is still debate on when and why some components of modern marketing emerged.²

Drawing on a variety of sources, this paper aims to investigate the international marketing of olive oil prior to World War II – an important export commodity for countries bordering on the Mediterranean basin. It documents the existence of well-differentiated patterns of export marketing across foreign markets. In particular, it shows that Mediterranean exporting firms made an increasing use of packaging, branding and advertising techniques when the product was exported to the other side of the Atlantic, whereas the opposite was true in the case of the Old Continent. It explores the reasons for such a difference in behaviour and, consequently, discusses the factors that might explain the expansion of modern export marketing in foreign markets for olive oil prior to World War II. A contribution of this paper is to show that foreign marketing strategies of exporting firms were influenced by a relatively high number of factors, such as first globalization forces, patterns of consumption and demand, distribution systems, commercial policy and brand (and consumers') protection legislation in importing markets.

The paper is organised as follows. Section 2 documents both the increasing use of modern marketing techniques in international markets for olive oil and the existence of well-differentiated patterns of export marketing by continents. Section 3 explores the reasons why firms exporting olive oil to the European markets made a low use of packaging, branding and advertising techniques. Section 4 analyses the emergence of modern marketing on the other side of the Atlantic and its determinants. Section 5 complements the previous analysis on export marketing in the Americas by focusing on the changing characteristics of demand. The paper ends with the main conclusions.

2. The expansion of modern marketing in olive oil prior to World War II

Packaging, product design, branding, pricing, market research and advertising are, among others, concepts generally identified with modern marketing today. Historical research in the field, however, has clearly shown that many of these marketing practices are less novel than they would seem. Although the chronology differs by countries and sectors, many historians have

¹ See, among others, Church (2000), Church and Godley (2003), Duguid (2003) and (2009), Lopes (2007), Lopes and Casson (2007) and (2012), and the chapters included in Lopes and Duguid, eds. (2010). See, also, the works on the evolution of trademarks over the nineteenth and twentieth centuries by Duguid, Lopes and Mercer (2010) and Sáiz and Fernández (2009), which are based on registration data for France, the USA, the United Kingdom and Catalonia (Spain).

² In the case branding, some historians have argued that modern branding emerged between the late nineteenth and the early twentieth centuries in parallel to modern corporate forms and managerial structures and, sometimes, it played an important role in the emergence of the modern enterprise. Mira Wilkins, for example, has associated modern brands with the emergence of large-scale modern enterprises (Wilkins 1994: 37). This view has been challenged by Paul Duguid, who has suggested that small firms “played an earlier and a significant part in the genesis of modern brands” (Duguid 2003: 405). By looking at the history of trade mark law, this latter author has also concluded that “*trademarks and laws are not children of the second industrial revolution. Rather they accompany and even precede the great industrial changes of the end of the century, spreading across Europe in the 1850s and the 1860s and across the Americas in the 1870s and 1880s*” (Duguid 2009: 31).

argued that in the developed world many practises of modern marketing rapidly expanded between mid-nineteenth and early twentieth centuries.³

The olive oil sector does not seem an exception to this general rule. Indeed, many of the ingredients that characterise modern marketing, especially in packaging, branding and advertising, were already present in the international markets of the product during the second half of the nineteenth century. For example, the use of bottles and cans conveniently labelled and branded can be already documented before the 1880s. Sale promotion methods began to be extensively used from around 1900 onwards. The importance of package and label design was well understood by some exporters early in the twentieth century. Finally, segmentation of the product by qualities and tastes appears to be the strategy of certain exporting firms prior to World War I. Like in many other sectors, modern marketing is, therefore, far from being a recent phenomenon for olive oil.

However, prior to World War II it is extraordinarily difficult to determine exactly how extensive the use of these new techniques in the international markets of the product was, simply because statistical information is not available. Trademark agencies provide data on trademark registration, but, to my knowledge, almost nothing is known about the total number of olive oil brands operating in foreign markets. If they exist, data on sales abroad by firm and brand are extraordinarily incomplete. And advertising expenditures of exporting firms dealing in olive oil have never been reported. Surprisingly, the only light in the darkness comes from the foreign trade statistics of the largest importing and exporting countries. Of course, they do not offer any indication on branding, not to speak of advertising. However, they progressively detail the weight and size of the packages which were used to trade olive oil in international markets, which appears to be a good (although imperfect) proxy for the extensiveness of the use of modern marketing techniques in international markets.

Indeed, prior to 1938 contemporaries clearly argued that the use of tins, bottles and other small packages was generally an indication that the product was branded whereas the use of barrels, casks and other large packages was associated with trading olive oil in bulk. More recently, Alfred Chandler has identified packaged with branded products, especially after the 1880s, the decade in which the first automatic-line canning factory was built in the USA. So, too, has Richard Tedlow, who, in addition, has argued that in the USA the beginning of massive brand marketing is closely linked to the possibility that this new machinery gave to the manufacturers of consumer goods to put their own name on a large volume of small packages. And, finally, Mira Wilkins has pointed out that, in the developed world, packaged, canned and bottled foods and beverages were almost always branded, especially between 1914 and 1938.⁴

³ According to some scholars, this expansion coincided with the growth of industrialization, increasing urbanization and, finally, the revolution of transport and communication. Daniel Pope, for example, invokes these three factors to explain the growth of modern advertising in the United States of America (Pope 1983: 31-39). And Richard Tedlow, following Chandler's findings, argues that in the 1880s numerous companies in the USA began to manufacture branded products to be sold nationally (instead of locally or regionally). This was partly because of the expansion of the railroad and the telegraph and partly because of the advances in machinery and manufacturing processes to produce large volumes of standardised products in small packages (Chandler 1977: 289; Tedlow 1990: 12-14; Tedlow 1993: 11-15). See also, among others, Fullerton (1988), Chandler (1990), Wilkins (1992), the articles included in Tedlow and Jones, eds. (1993), Church (1999) and the references quoted in the previous footnotes.

⁴ Chandler (1990), pp. 63-65 and 147-149, Tedlow (1993), p. 12 and Wilkins (1994), p. 30.

Table 1
An estimation of olive oil trade by packages and continents, 1870-1938

Periods ^a	Barrels, casks and other large packages			Cans, bottles and other small packages			All packages		
	Europe	America	Total	Europe	America	Total	Europe	America	Total
Panel 1: Annual rates of growth (%)									
1874-94	-0.7	3.3	-0.6	4.9	2.8	3.0	-0.6	2.9	-0.2
1894-13	-0.6	9.9	0.1	4.4	4.3	4.4	-0.4	5.3	1.1
1913-29	2.6	5.1	3.0	3.4	4.5	4.4	2.6	4.7	3.5
1929-38	-2.0	-0.5	-1.7	-6.2	-8.2	-8.0	-2.2	-5.6	-3.7
Panel 2: Shares (All packages=100)									
1870/74	90.3	1.1	91.4	0.7	7.9	8.6	91.0	9.0	100.0
1890/94	80.3	2.0	82.3	1.9	15.7	17.7	82.2	17.8	100.0
1909/13	57.6	9.8	67.4	3.5	29.1	32.6	61.1	38.9	100.0
1925/29	48.8	12.9	61.7	3.5	34.8	38.3	52.3	47.7	100.0
1934/38	57.1	17.3	74.5	2.8	22.7	25.5	59.9	40.1	100.0
Panel 3: Shares by packages									
1870/74	98.8	1.2	100.0	8.2	91.8	100.0	91.0	9.0	100.0
1890/94	97.5	2.5	100.0	10.8	89.2	100.0	82.2	17.8	100.0
1909/13	85.5	14.5	100.0	10.6	89.4	100.0	61.1	38.9	100.0
1925/29	79.1	20.9	100.0	9.2	90.8	100.0	52.3	47.7	100.0
1934/38	76.7	23.3	100.0	10.9	89.1	100.0	59.9	40.1	100.0
Panel 4: Shares by continents									
	European markets			American markets			All selected markets		
	Large Packages	Small Packages	Total	Large Packages	Small packages	Total	Large packages	Small packages	Total
1870/74	99.2	0.8	100.0	12.5	87.5	100.0	91.4	8.6	100.0
1890/94	97.7	2.3	100.0	11.4	88.6	100.0	82.3	17.7	100.0
1909/13	94.3	5.7	100.0	25.2	74.8	100.0	67.4	32.6	100.0
1925/29	93.2	6.8	100.0	27.0	73.0	100.0	61.7	38.3	100.0
1934/38	95.3	4.7	100.0	43.3	56.7	100.0	74.5	25.5	100.0

Notes and Sources: ^a 1874 is 1870/74, 1894 is 1890/94, 1913 is 1909/13; 1929 is 1925/29 and 1938 is 1934/38, the rest of the periods are five-year averages of the corresponding periods. See Ramon-Muñoz (2010a), appendix 5.1.

If packaging can be considered a proxy for branding, one is tempted to say that it can be also considered a proxy for advertising, since branding and advertising progressively became two sides of the same coin. This is however more difficult to prove. Advertising is related to many factors, which, in turn, differ from firm to firm as well as from country to country, although it is true that a larger use of branding techniques may be expected to have corresponded with a higher intensity in advertising.

Table 1 reports estimates on olive oil trade (imports) for the period 1870-1938 by distinguishing the container in which the product was packaged as well as the main geographical areas from which olive oil was imported. Although rough and provisional, these estimates show clearly that international trade in canned and bottled olive oil increased at a very rapid pace from the 1870s onwards. Indeed, rates of growth of canned and bottled olive oil were very high and, in any case, higher than those experienced by olive oil traded in large packages. If over the long run world olive oil trade experienced a slow growth, the same cannot be said for bottled and canned olive oil. In consequence, canned and bottled olive oil improved its share in international markets. In the early 1870s, for example, it accounted for less than 10 per cent of total world olive oil trade, but in the early 1890s, this percentage was already 15 per cent. By the second half of the 1920s, almost 40 per cent of all the olive oil put on the international markets was traded in cans and bottles of different weights, sizes and shapes. After 1929 this trade dropped dramatically in international markets, but this was because of the exceptional circumstances caused by the 1929 economic crisis. Indeed, the increase in tariff rates that characterized the years following the 1929 crisis was generally higher for olive oil traded in cans and bottles than for that traded in bulk, causing, therefore, a major reduction of world trade in the former rather than in the latter. In addition, the markets in which the product was mainly traded –i.e. Argentina and the United States- were strongly affected by the 1929 economic crisis, worsening the situation of packaged olive oil world trade.

To be sure, the largest foreign markets for bottled and canned olive oil were in the New World. And it was also in the New World that the product arrived mainly in cans and other small packages, as the information in table 1 shows. The same information also makes clear that olive oil trade differed enormously on both sides of the Atlantic, at least in terms of packaging. Certainly, the period 1870-1938 saw a certain convergence in trading patterns, as the percentage of olive oil traded in large packages increased in the New Continent whereas it tended to decrease, although slowly, in the Old Continent. In spite of this, by the late 1920s the Americas were still the destination of more than 90 per cent of all the canned and bottled olive oil exported from the producing countries of the Mediterranean basin. Similarly, American markets continued importing bottled and canned olive oil, which, on average, accounted for around $\frac{3}{4}$ of the total olive oil introduced into the continent. By contrast, in the late 1920s Europe still concentrated more than 75 per cent of the total world olive oil trade in barrels or casks and, in addition, continued importing olive oil in bulk, since only 7 per cent of the total quantity of olive oil imported was in cans and bottles.

If this evidence is applied to export marketing, the conclusions seem quite obvious. First, the use of modern marketing techniques, especially in packaging, branding and (probably) advertising, experienced an extraordinary growth from the 1870s onwards. And second, export marketing clearly differed on both sides of the Atlantic. Extensively used in American markets, packaging, branding and advertising techniques appear instead to have been modestly applied by exporters involved in trading olive oil towards the Old Continent. The remainder of this paper is mainly devoted to exploring the reasons for such a difference in behaviour and,

consequently, explaining why there was an expansion of modern export marketing in foreign markets for olive oil prior to World War II.

3. Exporters' low use of packaging, branding and advertising techniques in the European markets

This section shows that in European markets (as well as in other markets bordering on the Mediterranean Sea) olive oil was mainly imported as a raw material. And it also argues that this was a crucial factor to understanding why exporters made only a modest use of packaging, branding and advertising techniques when they exported the product to the Old continent. The section ends by arguing that distribution systems and tariff policy conditioned export marketing too, although probably to a lesser extent than the characteristics of demand.

3.1. The characteristics of demand and the pre-eminence of markets for bulk olive oil

Before the 1880s, its high price and cultural reasons kept olive oil away from the daily diet of most of the European people born outside the countries bordering on the Mediterranean Sea, where olive oil was generally confined to uses other than salad dressing or cooking. Throughout the three or four decades following 1850 the United Kingdom, France, Russia, Germany and most of the northern European countries were extraordinarily orientated to the consumption of low quality olive oil which was used for soap making, lubricating, oiling textile products or burning lamps.

Of course, edible olive oil of many different qualities and tastes was also in demand in the second half of the nineteenth century, but the amount of olive oil traded to be used for edible purposes was always below that traded for industrial uses. Also, very interestingly, it was almost never traded to be sold directly to the final user as a salad oil or for other cooking purposes. By the late 1880s, for example, edible olive oil imported through the Mediterranean ports of France was almost exclusively in demand for fish canning or to be blended with domestic olive oils as well as with foreign vegetable oils before being sold to the final consumer.⁵ Portugal imported high-quality olive oil, but the product served to feed the domestic fish canning industry rather than to be consumed as a salad oil.⁶ In 1888, 27.6 per cent of German imports consisted of edible olive oil, of which only 5 per cent appears to have arrived to the final consumer in its original package or state whereas the rest seems to have been subjected to further manipulations inside the country before reaching the final user.

Table 2
Olive oil trade for industrial uses and edible purposes, 1870/1874-1934/1938

Uses	Annual rates of growth (%)				Share (%)				
	1874 - 1894	1894 - 1913	1913- 1929	1929- 1938	1870/ 1874	1890/ 1894	1909/ 1913	1925/ 1929	1934/ 1938
For industrial uses (inedible)	-1.9	-4.7	-3.1	-0.1	83.1	59.1	25.7	8.8	10.7
For edible purposes	3.4	2.8	3.6	-2.5	16.9	40.9	74.3	91.2	89.3
sold directly to the end user	4.9	4.4	3.4	-6.2	0.8	2.3	5.7	6.8	4.7
All uses in Europe	-1.1	-0.4	2.6	-2.2	100.0	100.0	100.0	100.0	100.0
For industrial uses (inedible)	-1.8	-4.3	-1.8	0.1	76.0	49.9	17.4	6.4	9.1
For edible purposes	3.1	3.8	4.1	-4.0	24.0	50.1	82.6	93.6	90.9
sold directly to the end user	3.0	4.4	4.4	-8.0	8.6	17.7	32.1	38.2	25.3
All uses in the World	-0.2	1.1	3.5	-3.7	100.0	100.0	100.0	100.0	100.0

Notes and Sources: See Ramon-Muñoz (2010a), appendix 5.1.

⁵ Rigobon (1894), pp. 22 and 25.

⁶ Ministero di Agricoltura, Industria e Commercio (hereafter MAIC) (c1890), pp. 72-73.

These examples might be extended to other countries, but they would only confirm that through the second half of the nineteenth century olive oil was rarely traded to be sold directly to the final user as a salad oil or for other cooking purposes (table 2). As a result, packaging, labelling and other modern export marketing operations did not make sense for most of the olive oil traded towards the Old Continent. Firstly, the name of exporter (and, therefore, export branding) became a secondary issue when the product did not arrive to the final consumer in its original state. Secondly, branding and advertising were also secondary issues when the olive oil was subjected to further manipulations or was simply used as a raw material. Thirdly, the use of cans or other small packages complicated export. Packaging and labelling, for example, only made the product more expensive; and transport costs became higher too if the product was traded in small packages, since the smaller the immediate container in which olive oil was packaged, the higher the cost of transportation. In this context, it is not surprising that by the second half of the nineteenth century olive oil traded in small bottles and cans represented only a modest share of the total olive oil exported towards the Old Continent. This is also because it was a luxury product that was mainly addressed to the upper classes there.

From the early 1880s, patterns of consumption and demand were transformed radically on the Old Continent. Of great importance was the collapse of industrial markets for low-quality olive oil, as table 2 shows.⁷ As a result, olive oil producers and exporters had to adjust the product to other forms of demand. The first was, naturally, the kitchen and the table, where olive oil was consumed as a salad oil and for other cooking purposes either at home or in hotels and restaurants, as was the case in Germany, Switzerland or the United Kingdom.⁸ Taken as whole, this was, however, a relatively modest source of demand owing to the high price of the product itself and the preferences that northern-European people had for other oils and fats.⁹

In addition, the share of olive oil imported to be consumed in the kitchen relative to total olive oil imports varied remarkably from country to country. By 1909/13, for example, it accounted for around 70 per cent in Austria-Hungary, Bulgaria and Romania, but around 50-55 per cent in Germany, Switzerland or the United Kingdom and for below 15 per cent in Russia. Differences in the alternative uses of the product explain the bulk of these variations, as table 3 shows. Thus, in pre-revolutionary Russia there was still a large demand for olive oil to be used for lighting the temples of the Orthodox Church as well as the images that families had at home. Similarly, in Germany, Switzerland and the United Kingdom, soap making, oiling textiles and other industrial uses still accounted for around 50 per cent of total olive oil imports in 1909/13 and a similar share in 1925/29. Nevertheless, it is likely that a large part of this share was not actual olive oil but sulphur oil, a by-product obtained in the process of olive oil production.¹⁰

⁷ In the course of the second half of the nineteenth century, cheaper and more efficient seed oils, animal fats and mineral oils started to replace olive oil in its industrial applications. Ramon-Muñoz (2000a).

⁸ For the United Kingdom *La Revue Oléicole* (hereafter ROL), no. 81 (5th August 1913), p. 121; for Germany, MAIC (1912), p. 102 and for Switzerland Istituto Nazionale per l'Esportazione (hereafter INE) (1927), p. 43.

⁹ By the late 1920s, for example, per capita consumption of table olive oil was less than 0.5 Kilograms in Belgium, Bulgaria and the United Kingdom and less than 0.1 in Germany (0.05), Romania (0.05), Czechoslovakia (0.01) and Hungary (0.01), whereas it was 13 kilograms in Spain and 10 in Greece.

¹⁰ In fact, the true share of «industrial» olive oil in European markets was probably lower than the estimates on table 3 suggest, since not all the considered olive oil was olive oil but sulphur oil. Unfortunately, foreign trade statistics did not generally distinguish between inedible olive oil for industrial purposes and sulphur olive oil, which makes it difficult to know exactly how extensive the industrial markets for olive oil were. By 1909/13, for example, Austria-Hungary imported 1.5 metric tons of oils for industrial uses, of which around 80 per cent consisted of sulphur oil and the rest was olive oil of low-quality. If Germany, Switzerland and the United Kingdom had followed the Austro-Hungarian pattern then the industrial applications for olive oil would be much lower than table 3 suggests whereas the edible uses relative to total imports would increase substantially.

Table 3
An estimation of olive oil trade in Europe by importing countries and main uses, 1909/1913 and 1925/1929 (five-year averages)

Selected countries	1909/1913					1925/1929						
	Industrial uses ^b (inedible)	Edible purposes			Subtotal	Total	Industrial uses ^b (inedible)	Edible purposes			Subtotal	Total
		Salad & other cooking uses ^c	Other edible uses ^d					Salad & other cooking uses ^c	Other edible uses ^d			
Panel 1: Market orientation (total imports in the selected country =100)												
Austria/Hungary	31.1	68.9	0.0	68.9	100.0	52.3	47.7	0.0	47.7	100.0		
Belgium	27.3	72.7	0.0	72.7	100.0	6.3	93.7	0.0	93.7	100.0		
Bulgaria	25.5	74.5	0.0	74.5	100.0	28.4	71.6	0.0	71.6	100.0		
Czechoslovakia	---	---	---	---	---	55.6	44.4	0.0	44.4	100.0		
France	15.8	46.7	37.5	84.2	100.0	10.5	58.7	30.8	89.5	100.0		
Germany	50.8	49.2	0.0	49.2	100.0	51.4	48.6	0.0	48.6	100.0		
Italy	0.0	24.7	75.2	100.0	100.0	0.0	1.1	98.8	100.0	100.0		
Norway	2.5	0.2	97.3	97.5	100.0	0.1	3.2	96.8	99.9	100.0		
Portugal	0.0	0.0	100.0	100.0	100.0	0.0	1.9	98.1	100.0	100.0		
Romania	29.9	70.1	0.0	70.1	100.0	1.2	98.8	0.0	98.8	100.0		
Russia	87.5	12.5	0.0	12.5	100.0	n/a	n/a	n/a	n/a	n/a		
Switzerland	44.2	55.8	0.0	56.8	100.0	34.5	65.5	0.0	65.5	100.0		
UK	52.3	44.4	3.3	47.7	100.0	47.7	50.8	1.5	52.3	100.0		
Subtotal ^e	25.9	41.7	32.6	74.1	100.0	8.8	25.8	65.4	91.2	100.0		
Panel 2: Market share (total imports in the selected use =100)												
Austria/Hungary	6.6	9.1	0.0	5.1	5.5	1.1	0.4	0.0	0.1	0.2		
Belgium	3.1	5.1	0.0	2.9	2.9	3.7	18.9	0.0	5.3	2.5		
Bulgaria	2.8	5.0	0.0	2.8	2.8	2.0	1.7	0.0	0.5	0.6		
Czechoslovakia	---	---	---	---	---	4.2	1.2	0.0	0.3	0.7		
France	19.8	36.2	37.1	36.6	32.3	24.7	47.6	9.8	20.5	20.9		
Germany	15.4	9.2	0.0	5.2	7.8	18.7	6.1	0.0	1.7	3.2		
Italy	0.0	13.1	50.8	29.6	22.0	0.3	2.4	82.4	59.8	54.5		
Norway	0.2	0.0	5.4	2.4	1.8	0.0	0.3	3.9	2.9	2.6		
Portugal	0.0	0.0	3.3	1.5	1.1	0.0	0.2	3.7	2.7	2.5		
Romania	4.5	6.5	0.0	3.6	3.8	0.1	2.6	0.0	0.7	0.7		
Russia	19.0	1.7	0.0	0.9	5.6	n/a	n/a	n/a	n/a	n/a		
Switzerland	3.7	2.9	0.0	1.6	2.2	7.5	4.9	0.0	1.4	1.9		
UK	24.9	13.0	1.2	7.8	12.2	37.6	13.8	0.2	4.0	7.0		
Subtotal ^e	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

Notes and Sources: ^a Austria-Hungary is only Hungary in 1925/29; ^b it includes sulphur oil; ^c salad and other cooking uses for domestic consumption, excluding re-exports; ^d it includes fish-canning, blending, refining, packaging and re-exporting purposes; ^e it only includes selected countries. See also Ramon-Muñoz (2010a), Appendix 5.1.

The average quality of the olive oil consumed as a salad oil or for other cooking purposes also varied enormously from country to country and within countries. According to Italian consular information, by the first decade of the twentieth century, and probably before, eastern European countries imported and consumed a product, which, on average, was of inferior quality relative to that imported and consumed by Germany and other western European countries. This pattern perhaps continued in the interwar period and that might reflect differences in per capita income.¹¹

Of course, demand was also segmented within countries. In terms of taste, for example, people from northern France, and, in general, from northern Europe, preferred olive oil with a smooth taste and light colour, which were two properties closely associated with many vegetable oils. On the other hand, people from Mediterranean France, where olive oil was produced, asked for a product of more genuine characteristics, namely of green-yellow colour and with a more pronounced taste.¹² The income of consumers was another source of segmentation. Thus, in 1911, eight different qualities and, therefore, eight different prices of edible olive oil for table uses were quoted in Bucharest and Galatz (Romania), seven in Zurich (Switzerland) and five in Mannheim and Nuremberg (Germany).¹³ At the top of the price ranking it was easy to find virgin olive oils from the most reputed regions of the Mediterranean basin, which could be quoted at prices between 40 and 90 per cent higher than those quoted at the bottom of the ranking. Interestingly, among the quotations of olive oils for table and kitchen consumption it was not uncommon to find olive oils mixed with other vegetable oils.¹⁴

Adulteration is, in fact, further evidence of segmentation in the European markets, this time in terms of product purity. Indeed, by means of blending operations olive oil could arrive at the final consumer adulterated with cheaper vegetable oils, a legal practice that, judging from consular information, increased rapidly from the last decade of the nineteenth century owing to both the growth of international trade in oilseeds and the improvement of refining methods in vegetable oils. Of course, olive oil producers were against adulteration.¹⁵ Yet, it might be argued that this practice contributed to boost the consumption of edible olive oil for cooking purposes in the Old continent, partly because these blends helped to adjust the product to the consumers' taste and partly because they helped to reduce the price of the final product. As said above, Northern European people were generally accustomed to the neutral taste and light colour of domestic and imported vegetable oils, such as peanut oil, sesame oil or cottonseed oil.¹⁶ On the other hand, olive oil was a very sensitive product to price changes (at least in the short-run), having a price elasticity of about unity and even higher. The fact was that traders in the olive oil business soon tried to smooth both the natural taste and colour and the high price of the product by means of blending olive oil with other vegetable oils before the product arrived at the final consumers. According to consular information, these blends of olive oils with other vegetable

¹¹ See, for example, the Italian report on Romania, which illustrates the great consumption of olive oil of low quality and, consequently, low price for the years prior to World War I. MAIC (1912), p. 150. The same could be said for previous decades. According to consular information, in the late 1880s 71 per cent of olive oil imported in southern Bulgaria was of second quality and 8 per cent of third quality. See MAIC (1888), pp. 5-6 and 39-40.

¹² MAIC (1912), pp. 56-57.

¹³ See MAIC (1912), p. 92 (Germany), p. 151 (Romania) and 202 (Switzerland).

¹⁴ In 1911, for example, blends of olive oil with sesame oil were quoted in the German market of Mannheim between 20 and 40 per cent lower than pure olive oil. MAIC (1912), p. 92.

¹⁵ In Italy, for example, discussions on olive oil adulteration and its consequences both in the country and in foreign markets were reported in Italian journals from around 1880. In response to producers' concerns, Italian authorities established a parliamentary commission to discuss this issue. For references, see Ramon-Muñoz (2010a), p. 195.

¹⁶ For example, the Italian consul in the German city of Hamburg argued that "*from ancient times, the great majority of the German people were accustomed to the taste of other vegetable oils, obtained from domestic grown seeds (...) as well as from imported seeds (...)*". MAIC (1912), pp. 83-84. The translation is mine.

oils were already being made in the northern European markets from the 1880s and continued after World War I.¹⁷

Fish-canning was a second source of demand. Like table and kitchen oils, this source of demand was not a new one. From the first half of the nineteenth century, France was importing olive oil for fish-canning purposes and so did Portugal and other places from the 1880s.¹⁸ It was not of great importance, since by the eve of World War II it can be estimated that it still only accounted for around 5 per cent of total European olive oil imports. However, olive oil demand for fish-canning grew rapidly after the 1890s. This growth was mainly due to the robust growth of fish-canning production in Portugal and, above all, in Norway.¹⁹ Not surprisingly, from the beginning of the twentieth century Spanish consular information called attention to the possibilities that Norway offered to the Spanish exporters of olive oil. They also pointed out that this was a valuable source of new demand, mainly because Norwegian fish-canners demanded a product which had a total absence of unpleasant taste, odour and colour, and, therefore, a high standard of quality.²⁰

A third source of demand came from both the French and Italian olive oil exporting industries. It consisted of good-quality olive oil of different tastes, colours and other physical and chemical characteristics to be filtered, blended with domestic oils, packaged and, finally, re-exported to foreign markets. Strictly speaking, this was not a new source of demand either, since French exporters were importing edible olive oils for blending and re-exporting purposes from at least mid-nineteenth century. The novelty was that from the turn of the century Italian exporters incorporated the practices of their French colleagues, contributing to reinforce the foreign trade of edible olive oils to be used for blending, packaging and re-exporting operations.

The fourth and last source of demand also came from France and Italy. This time it was closely connected to the requirements of the industrial refining plants and was, therefore, both a revolutionary and a new source of consumption. Prompted by olive oil exporters, industrial refining plants were established for the first time in northern Italy and Southern France around 1912. They initiated a new trading flow inside the Mediterranean basin consisting of olive oils of low-quality, high-acidity or deficient in some other respect, which, once refined, were mainly used by both French and Italian exporters for blending, packaging and re-exporting operations too. This new source of demand became highly significant, however, in the course of the inter-war period, coincident with an increase in the capacity of the refining plants and the requirements of the exporting industry. In fact, of the total olive oil imported in Europe for refining in the late 1920s, more than three-quarters seems to have had Italy as a final destination.²¹ The rest of olive oil for refining operations was almost exclusively imported by

¹⁷ For the last quarter of the nineteenth century, see MAIC (1888), pp. 27-79, Rigobon (1894), pp. 59-60 and MAIC (1900), especially pp. 7-11, 37 and 43. For the first decade of the twentieth century, see MAIC (1912), p. 16 (Austria-Hungary), p. 29 (Belgium), pp. 60-66 (France), pp. 83-84 and 90-91 (Germany), pp. 106-107 (the United Kingdom), pp. 150-151 (Romania) and p. 204 (Switzerland). And for the inter-war period, see INE (1927), pp. 35-59, *Servicio Informativo de la Federación de Exportadores de Aceite de Oliva* (hereafter SIFE), Supplement to the Report no. 148 (1927), Report no. 390 (1928), Supplement to the Report no. 440 (1928), Report no. 852 (1930), Reports no. 146 (1927), 203 (1927), 204 (1927), 640 (1929), 1394 (1931), Camera di Commercio Italo-Orientale (1927), pp. 197 and 223 and INE (1927), p. 41, which are devoted to Switzerland, Austria, Germany, Romania, Bulgaria and Switzerland.

¹⁸ References to olive oil demand for supplying the French fish-canning industry early in the nineteenth century in Ricchioni (1938), p. 24 and for later periods Rigobon (1894), p. 22 and MAIC (1912), pp. 44-45, 52 and 60.

¹⁹ Although probably very modest, another location of demand for olive oil for fish-canning was Zadar, the former Austro-Hungarian city on the coast of the Adriatic Sea. MAIC (1912), p. 15.

²⁰ See, for example, *Boletín del Centro de Información Comercial* (hereafter BCIC), no. 153 (31-VIII-1908), no. 154 (15-IX-1908), no. 165 (15-II-1909), no. 244 (10-V-1912), no. 337 (25-III-1916), no. 518 (15-X-1923), no. 658 (15-VIII-1929).

²¹ By 1934, for example, Italy had 32 refining factories with an annual capacity of production of around 2 million metric quintals of vegetable oils. Zunino (1939), p. 77.

point to explaining export marketing in Europe: in the course of the first third of the twentieth century, olive oil continued being used as a raw material rather than a product of direct consumption. By the eve of World War I, for example, almost 60 per cent of the total olive oil imports were demanded for industrial applications, for fish-canning or were imported to be refined, blended and re-exported. By the late 1920s, these uses already accounted for almost 75 per cent of total imports. Moreover, blending, refining and re-exporting had become the largest source of demand, accounting for around 60 per cent of total imports, of which a very large proportion served to feed the industrial refining plants. In this context, modern techniques of export marketing had little room. The product was traded in large packages, as marketing information from contemporary sources shows.²⁵ And branding and advertising had little sense, especially if the product had to be refined. Giulio Zunino an expert on olive oil marketing, was clear when he said that “... *in buying olive oil refiners do not have any concern other than price [; since] whatever was the country of origin [of olive oil] the product always behaves in the same way when submitted to the action of chemicals in the refining processes*”.²⁶

If the use of modern export marketing techniques was of little importance when the product was used as a raw material, one might expect that packaging, branding and advertising were more extensively used when the product was demanded to be consumed as a salad oil and for other cooking purposes. They probably were, but not always because of the action of exporters. The available information is somewhat obscure in this field, but it seems to suggest that exporting firms did not always play an active role in packaging, branding and advertising the product in the final consumption market, something that appears to be in part related to the distribution systems most used in trading olive oil as a a salad oil and for other cooking purposes.

3.2. The distribution systems and the role of packaging, branding and advertising in export marketing

Distribution systems varied from one market to another and over time. In spite of this, a relatively extended practise among exporting firms was the use of representatives, commission agents and other middlemen. Placed in the largest markets of consumption and working generally under commission, they received the orders of importers, wholesalers and, to a lesser extent, retailers. Apart from assuring the success of commercial operations, they also informed exporters about trends and characteristics of demand and, if necessary, they were in charge of promoting the product in the consuming market. According to consular information, prior to World War I the role of representatives and agents appears to have been predominant in Romania (at least for western-European olive oils), the United Kingdom and, probably, in Germany and other smaller markets of Northern Europe. Although unusual, exporting firms could also employ travelling salesmen, as was the case with French olive oil firms in Belgium. Finally, olive oil could be directly traded by the importer, as partly occurred in Belgium, Romania (for the olive oil imported from eastern Mediterranean producers), Switzerland and the United Kingdom.²⁷

²⁵ Olive oil imports in Germany for technical uses were made in barrels weighing between 100 and 200 kilograms (MAIC 1912:85). In France, and according to a reputed French firm, olive oil arrived mainly in packages made of wood, weighing 300 or 500 kilograms (MAIC 1907: 57-58). See, also, ROL (1913), which details the packages used in importing olive oil into Marseilles, a leading French port for olive oil. The packages used in trading olive oil for fish-canning were even larger. On the eve of World War I, for example, most of the olive oil arrived in Portugal in packages weighing from 500 to 600 kilograms, gross weight, whereas in Norway packages weighing from 500 to 600 kilograms, net weight, were preferred. MAIC (1912), pp. 137 and 146. For Norway, see also ROL (1913), no. 74 (5th January 1913), pp. 11-12.

²⁶ Zunino (1939), pp. 189-190. The translation is mine.

²⁷ MAIC (1912).

Of most interest for our purposes is, perhaps, the fact that the development of modern export marketing techniques could become unnecessary depending on the distribution system operating in consuming markets. The case of the United Kingdom is illustrative in this respect. From the beginning of the twentieth century, and according to an official report from the French protectorate of Tunisia for the years before World War I, a relatively small number of London firms had been able to concentrate a very large share of the imported olive oil. This olive oil was, then, distributed to retailers, grocer's shops and other stores as well as hotels and restaurants, where the product was consumed in the kitchen as well as being used as a salad oil.²⁸ Although more research would be required in this field, there is evidence showing that some of these British firms were not only involved in olive oil but also in the production and commercialisation of many others packaged and branded food products. Crosse & Blackwell and E. Lazenby, for example, two of the leading olive oil importing firms, were also among the big three jam makers in the United Kingdom before 1900. These two companies, which together with James Keiller formed a holding company in 1919, also made preserves and sauces and, thanks to the Crosse & Blackwell factory, were able to manufacture their own tin boxes too. Olive oil production and trade did not escape, therefore, from the British expansion of producers and distributors of packaged and branded products.²⁹

The crucial point is that some of these firms submitted the imported olive oil to further manipulations before it arrived at the final consumer. Of course, a share of the imported olive oil to the United Kingdom arrived at the end user in its original state, namely in cans or bottles labelled with the brand name of the exporting firm. This was especially true for those exporting firms that had been able to credit their own products (and brands) among British consumers. However, another proportion of olive oil was re-processed in the country, namely blended, filtered, re-packaged and labelled or all of them together. If packaged and labelled, the processed product was also branded with the name of the distributor firm, which, of course, was the name used to advertise the product. In this context, it is not surprising that by the eve of World War I some of the best well-known brands were both prepared and owned by British processors and distributors, of which Crosse & Blackwell, E. Lazenby & Sons, J. Moir & Son and E. & J. Pink, all of them from London, were among the best known.³⁰ And it is not surprising either that if olive oil was submitted to further manipulation exporters did not develop modern export marketing techniques, at least in terms of packaging, branding and advertising.

In Europe, the United Kingdom was not the only country in which olive oil to be used as a salad oil and for other cooking purposes, experienced further manipulation before reaching the final consumer. In Germany, Switzerland and other central and eastern European importing countries, wholesalers, and even retailers, could manipulate the product too, partially because a large part of the product was imported in bulk owing to the discriminatory tariffs against packaged olive oil, as will be explained below. However, and in contrast to the United Kingdom, processors and distributors of packaged and branded food products do not seem to have played any significant role in re-processing and distributing the product.³¹

²⁸ ROL (1913), no. 81 (5 August, 1913), p. 120.

²⁹ Following Chandler, it might be argued that in order to exploit both scale economies and distribution advantages of the new methods of refining, processing and packaging of food that emerged in the late nineteenth century British producers and distributors integrated new lines of products, including olive oil. See Chandler (1990), especially pp. 262-268, 318 and 366-392.

³⁰ Other well-known brands were Thomas Rae, Acchiardi, Thomas Lloyd from Leghorn (Tuscany-Italy), P. Sasso e Figli from Oneglia (Liguria-Italy) and Agesi e Giacomo from Torino (Italy). See MAIC (1912), p. 106.

³¹ If confirmed, this might be in line with Chandler's findings, namely a limited entrepreneurial response to the development of packaged and branded products outside the United States and the United Kingdom. See, the German cases in Chandler (1990), especially pp. 430-434.

If the characteristics of the firms involved in the distribution process could lead to a low use of modern export marketing techniques, the same could be said when importers increased control over production and export activities. This control could increase either by means of placing representatives and commission agents in the largest production and trade markets or by integrating production and foreign-trade operations. It is obvious that these strategies were taking place in European markets for table and kitchen olive oil at least since the late nineteenth century, although it probably increased during the inter-war period. Not surprisingly, the United Kingdom and France are the best documented cases, probably because they also were the European countries in which foreign olive oil for salad and other cooking purposes was most traded during the first third of the twentieth century.

To quote some examples, by the mid-1890s (and perhaps earlier) W.T.S. Rae, an important London trading house, had integrated foreign-trade activities by setting up a branch in Leghorn, the coastal city from where the high-quality Ligurian olive oils were shipped to the United Kingdom and other areas of the world. Ranking, in the 1890s, at the top of British importers of edible olive oil, the firm possessed its own ships, which allowed it to integrate transport activities too. In any case, by the eve of World War I, and probably before, Thomas Rae branded olive oil was a well-known product in the London market.³² Prior to World War I, French importers were also well known in the largest Spanish markets of production, not to mention in Tunisia and Algeria, the two olive oil French producing dominions in Africa. Apart from carrying out investments in manufacture, French importers employed (sometimes only during the harvesting period) representatives, commission agents and other middlemen to deal directly with olive oil producers in foreign countries.³³ After World War I, Leon Frenkel, another trading house from London, integrated production and trading activities by investing in Malaga, one of the largest Spanish olive oil production provinces. By the late 1920s, and perhaps before, the firm already seems to have been able to integrate the whole process of production, beginning with the pressing of the olive and ending with the packaging and labelling of the final product, which was finally traded under the brand-names *Ambrosia* and *Spanish Beauty*.³⁴

Whatever the strategy followed, the fact is that when importers increased control over production and trade activities they also weakened the importance of packaging and, especially, branding and advertising in export trade. Advertising the product, for example, made no sense for both producers and exporters that were visited by the local agents of the importing firms. And the same could be said when importers integrated packaging plants, especially if the plant was placed in the consuming country, which tended to cause an increase in the bulk olive oil trade and, in addition, might have hindered a larger use of modern export marketing techniques among exporters.

3.3. *Tariff discrimination against canned and bottled olive oil*

Besides distribution systems, tariff policy was the other factor that limited the use of modern export marketing techniques in European markets for table and kitchen olive oil. Olive oil was generally taxed with duties in most of the importing countries, excluding the United Kingdom

³² Rigobon (1894), p. 62 and MAIC (1912), p. 106.

³³ For Spain, see Ramon-Muñoz (2000b), pp. 106-107 and Lamarca (1922), pp. 14-16 and 22. For Tunisia, Manufactures Bureau (1908), pp. 71-72. As the U.S. consular agent in Tunisia argued, in olive growing "... the colonialist supplies the capital and the implements that are required. The contract is usually canceled at the end of eight years, and the parties share in halves after taking the amount of the advances made by the colonialist. However, no interest is charged to the native". The consular agents also pointed out that besides Arab mills, where the processes were most rudimentary, modern French and other foreign mills had been established in the country.

³⁴ Letter from Leon Frenkel to the Federation of Spanish Olive Oil Exporters, Malaga, 7th November 1928. See Ramon-Muñoz (2010a), p. 202.

and Belgium. Olive oil, however, was not always treated as a homogeneous product in the tariff legislation of importing countries. In fact, from the last decades of the nineteenth century onwards the tariff legislation of the main importing countries began to discriminate by uses and packaging. For example, by the late 1880s both the Austria-Hungarian and German tariff legislation already distinguished between inedible olive oil for industrial uses, edible olive oil imported in barrels and edible olive oil imported in bottles whereas in Switzerland the distinction was between olive oil imported in large packages and that imported in small packages.³⁵ Later on, the 1892 French tariff legislation began to differentiate between olive oils for soap making and the other ones, whereas the USA tariff act of 1897 not only established different duties depending on the quality and the uses of the imported olive oil but also depending on the package in which the product was imported.³⁶ Interestingly, Germany, Austria-Hungary and other central and eastern countries went a step further, since before World War I they also established tariff discriminations between pure olive oils and olive oils mixed with other vegetable oils.³⁷

As a result, by the eve of World War I most of the largest importing countries already distinguished between inedible olive oil for industrial purposes, which sometimes was imported free of duty, and the rest of the olive oil of different qualities and uses. Tariff discrimination by packages was certainly less extensive, but it affected some of the world's largest olive oil importers. By the beginning of the 1930s, for example, from a sample of 77 countries and colonial territories only 20 had established some kind of tariff discriminations depending on the package in which olive oil was imported. However, among these twenty countries Germany, Switzerland, Argentina or the United States were included.³⁸

Table 5 shows 1932 olive oil specific duties for a sample of 17 countries, including importing countries with some type of package tariff discriminations but excluding inedible olive imports as well as Mediterranean olive oil producers and importers, which tended to develop special trade regimes. Although the figures refer to duties for Spanish olive oil, the evidence is extraordinarily illustrative. It shows that if tariff discrimination had been established this was generally against olive oil imported in small tins or in bottles. In other words, tariff duties tended to be higher for those products with a superior stage of elaboration and a higher added value. This is not surprising. To start with, higher duties over olive oil traded in tins meant a major protection for the domestic tin-plate industry. It also offered the possibility that domestic traders and dealers could manipulate the product, and finally, it allowed *a priori* for a major development of the domestic food packaging industry.

The second most remarkable thing has to do with the differences between tariffs on both sides of the Atlantic. The evidence is also clear in this respect. Although specific duties were substantially higher in the Americas than in other parts of the World, it was in Europe where differences between the olive oil imported in tins or bottles and that imported in bulk were higher. In addition, and according to Spanish information, the world region which had more countries with discriminatory tariffs was Europe, since 37 per cent of their countries had introduced different tariff duties. This percentage was 27 per cent in both the Americas and among the Mediterranean olive oil producers and 14 per cent in the rest of the World.³⁹ Although a major research effort would be required in the field, it might be claimed that the influence of interest groups lobbying for protection was perhaps higher in the Old Continent than in the New

³⁵ MAIC (1888), p. 33 (Austria-Hungary), 46 (Germany) and 52-54 (Switzerland).

³⁶ For France, ME (1899), p. 34 and for the USA, U.S. Tariff Commission (1931), p. 5.

³⁷ MAIC (1912), pp. 22 (Austria-Hungary), 95-96 (Germany) and 153 (Romania); and Gervaso (1917), pp. 75 (Austria-Hungary), 79 (Germany) and 82 (Romania).

³⁸ Ministerio de Agricultura, Industria y Comercio (1932).

³⁹ Ministerio de Agricultura, Industria y Comercio (1932).

World, which might explain why these tariff differences were higher in Europe than in the Americas.

Table 5
Tariff duties for Spanish edible olive oil by type of package and countries in April 1932

Countries	Specific duties (in pesetas per 100 kilograms)			Absolute differences in specific duties (pesetas per 100 kilograms)		Relative differences in specific duties (Barrels=100)	
	Barrels I	Tins II	Bottles III	Tins (II-I)	Bottles (III-I)	Tins	Bottles
Panel 1. European olive oil importers (excluding Mediterranean producers)							
Austria	5.6	11.1	11.1	5.6	5.6	200.0	200.0
Bulgaria	50.0	90.0	90.0	40.0	40.0	180.0	180.0
Czechoslovakia	37.8	56.7	56.7	18.9	18.9	150.0	150.0
Germany	0.0	14.6	14.6	14.6	14.6	---	---
Hungary	3.6	7.2	7.2	3.6	3.6	200.0	200.0
Romania	27.9	32.9	32.9	5.0	5.0	117.8	117.8
Switzerland	10.0	20.0	20.0	10.0	10.0	200.0	200.0
<i>Unweighted Average</i>	<i>19.3</i>	<i>33.2</i>	<i>33.2</i>	<i>13.9</i>	<i>13.9</i>	<i>172.4</i>	<i>172.4</i>
<i>Coefficient of variation</i>	<i>100.5</i>	<i>90.8</i>	<i>90.8</i>	---	---	---	---
Panel 2. American olive oil importers							
Argentina	55.0	55.0	50.0	0.0	-5.0	100.0	90.9
Cuba	12.4	12.4	17.1	0.0	4.7	100.0	137.5
Ecuador	62.2	82.9	82.9	20.7	20.7	133.3	133.3
Haiti	41.4	51.8	62.2	10.4	20.7	125.0	150.0
Mexico	32.3	51.6	77.4	19.4	45.2	160.0	240.0
Puerto Rico	15.3	18.8	18.8	3.5	3.5	123.1	123.1
United States	15.3	18.8	18.8	3.5	3.5	123.1	123.1
<i>Unweighted Average</i>	<i>33.4</i>	<i>41.6</i>	<i>46.7</i>	<i>8.2</i>	<i>13.3</i>	<i>124.6</i>	<i>139.9</i>
<i>Coefficient of variation</i>	<i>60.6</i>	<i>61.9</i>	<i>61.4</i>	---	---	---	---
Panel 3. Rest of olive oil importers (excluding Mediterranean producers)							
Australia	0.0	n/a	n/a	n/a	n/a	n/a	n/a
Japan	0.0	0.0	39.6	0.0	39.6	---	---
Philippines	n/a	n/a	n/a	n/a	n/a	166.7	166.7
Panel 4. All countries listed in the table							
<i>Unweighted Average</i>	<i>23.0</i>	<i>34.9</i>	<i>39.9</i>	<i>11.9</i>	<i>16.9</i>	<i>151.5</i>	<i>173.4</i>
<i>Median</i>	<i>15.3</i>	<i>20.0</i>	<i>32.9</i>	<i>4.7</i>	<i>17.6</i>	<i>131.0</i>	<i>215.2</i>
<i>Coefficient of variation</i>	<i>91.2</i>	<i>80.2</i>	<i>70.3</i>	---	---	---	---

Notes and Sources: n/a, no data available. See Ramon-Muñoz (2010a), p. 204.

Certainly, it would seem that 1932 is not the best year to analyse tariff policy, since tariff duties were extraordinarily influenced by the 1929 international crisis. However, information for 1898, 1913 and 1926 shows that what was true for 1932 was also true for previous years (see table 6). In 1913, for example, European specific duties for canned and bottled olive oil doubled or even quintupled duties for bulk olive oil whereas these differences were never higher than 30 per cent in the Americas. The European discriminatory policy against canned and bottled olive oil is even more apparent if *ad valorem* duties instead of specific duties are used, as table 6 (panel 2) shows clearly. Of the European countries, differences in specific duties over the first third of the twentieth century were very high in Czechoslovakia, Switzerland, Germany, Bulgaria and Hungary. With the exception of Hungary, these countries mostly imported olive oil in bulk too, as has been previously shown.

Table 6
Tariff duties by countries and packages, 1898-1926

Countries	1898		1913		1926	
	cans	Bottles	cans	bottles	cans	bottles
Panel 1. Specific duties (duties for olive oil imported in large packages = 100)						
Austria-Hungary	100	417	550	550	200	200
Bulgaria	n/a	n/a	180	180	133	133
Czechoslovakia	---	---	---	---	225	150
Germany	n/a	n/a	200	200	200	200
Romania	200	200	240	240	120	120
Switzerland	n/a	n/a	667	667	200	200
<i>Unweighted Average (Europe)</i>	<i>150</i>	<i>308</i>	<i>367</i>	<i>367</i>	<i>180</i>	<i>167</i>
Argentina	123	123	129	129	100	94
Brazil	100	100	125	125	125	125
Cuba	n/a	n/a	n/a	n/a	100	138
Mexico	100	133	100	129	139	209
United States	125	125	125	125	132	132
<i>Unweighted Average (America)</i>	<i>112</i>	<i>120</i>	<i>120</i>	<i>127</i>	<i>119</i>	<i>140</i>
Panel 2. <i>Ad valorem</i> equivalents (duties for olive oil imported in large packages = 100)						
Austria-Hungary	100	371	229	229	308	308
Bulgaria	100	100	122	122	97	97
Czechoslovakia	n/a	n/a	n/a	n/a	225	150
Germany	n/a	n/a	336	336	156	156
Romania	n/a	n/a	144	108	89	89
Switzerland	n/a	n/a	523	523	176	176
<i>Unweighted Average (Europe)</i>	<i>100</i>	<i>235</i>	<i>271</i>	<i>264</i>	<i>175</i>	<i>163</i>
Argentina	n/a	n/a	n/a	n/a	100	122
Brazil	n/a	n/a	n/a	n/a	125	125
Cuba	n/a	n/a	100	134	100	107
Mexico	100	89	100	71	112	184
United States	84	84	94	94	110	110
<i>Unweighted Average (America)</i>	<i>92</i>	<i>87</i>	<i>98</i>	<i>100</i>	<i>109</i>	<i>130</i>

Notes and Sources: n/a, no data available. See Ramon-Muñoz (2010a), Appendix 5.2.

Consequently, it seems difficult to ignore tariff policy in explaining export marketing, at least for some central and eastern European countries and as far as packaging is concerned. Contemporaries were well aware of this fact. On the eve of World War I, for example, Italian consular information for the former Austro-Hungarian cities of Trieste and Zadar, as well as for the whole of Germany, justified the fact that olive oil was mostly imported in large barrels instead of cans and bottles by arguing that lower tariffs had to be paid on the former recipients.⁴⁰ By the mid-1920s, Italian reports from official organisations pointed out that the olive oil with Switzerland as a final destination was traded in bulk by the exporting firms. According to them, part of this olive oil was later bottled and labelled in Switzerland by importers, which, sometimes, used the labels provided by the same exporting firms.⁴¹

4. Explaining why modern export marketing techniques were intensively used in the Americas

4.1. Mass migration and the massive use of packaging, branding and advertising techniques

In Europe, the low demand for table and kitchen olive oils, together with the characteristics of the distribution systems and a discriminatory tariff policy on canned and bottled olive oil, led to a

⁴⁰ MAIC (1912), pp. 23-24 (Austria-Hungary) and 97 (Germany).

⁴¹ INE (1927), p. 41, also reproduced in SIFE, Supplement to the Report no. 144 (1927). See also SIFE, Supplement to the Report no. 1,415 (1931).

modest use of modern packaging, branding and advertising techniques in olive oil export trade. By contrast, in the Americas packaging, branding and advertising techniques in export marketing experienced an enormous expansion at least from the 1870s onwards. One obvious reason explaining differences in the pattern of marketing on the two sides of the Atlantic is that most of the olive oil demanded in the Americas was consumed as a salad oil and for other cooking purposes, as will be discussed in section 5. However, it still remains unclear why exporting firms might have decided to package, brand and advertise the olive oil traded towards the Americas.

Literature suggests different answers to this question.⁴² For example, Mira Wilkins has insisted on the informative nature of branding by looking at the food processing industry prior to World War II. She has argued that brands became important when producers ceased to know their consumers personally, as was the case from the late nineteenth century. When this occurred, brands informed the consumer about the characteristics of the product, provided a guarantee of continuing standard of quality and enhanced consumer choice. Consequently, they reduced the time of transaction, lowering the cost of food and drink. On the other hand, Mark Casson has concluded that brands tend to transmit various “cultural” characteristics, which manipulate consumer demand. According to him, brands symbolize sets of values, including cultural values of one sort or another, rather than inform about the factual characteristics of the products.⁴³

The interaction of these (and other) factors influenced the use of packaging, branding and advertising in exporting olive oil towards the Americas. There is, however, a fact that remains. In the olive oil sector, mass marketing in the Americas coincided with the late nineteenth century southern European mass migration to the New World. Although by the 1880s (and even before), several brands were already well established in the Americas, it seems obvious that this new and massive migration challenged the marketing techniques of exporting firms. Indeed, between 1880 and 1913 more than 13 million people abandoned southern Europe to settle permanently or temporarily in the New World. As olive oil was in the diet of the Italians, Spaniards, Portuguese and Greeks, olive oil exporting firms suddenly faced a new and enormous foreign market that was growing rapidly and that had to be supplied.⁴⁴ In addition, consumers were now on the other side of the Atlantic, far away from the traditional suppliers of the product. With a new, distant and growing market, convincing potential consumers to buy their own product but not that supplied by the competing firms became an essential task for exporters. Apart from many other aspects, exporters had to inform the potential consumers about the quality, the origin and other characteristics of the product in order to attract them to their product. As a first step, this meant that consumers had to distinguish olive oil supplied by one firm from those supplied by other firms. Branding, together with packaging, labelling and advertising, was a means to do it, since it allowed people to differentiate between products from competing firms as well as informing the consumers about its characteristics. It also allowed exporters to attempt to establish a sort of link between the product and the country of origin of the migrant, which, of course, might persuade consumers to purchase the firm’s product and enlarge its market share.

⁴² The real purpose of branding and advertising has been under discussion since the earliest modern economists. An area of this discussion has been about the informative or persuasive nature of branding and advertising. See, for example, Kaldor (1950) and Nelson (1970) and (1974). A second area of discussion has been the role of branding and advertising in the competitive strategy of firms and industries. This issue is developed in Ramon-Muñoz (2010b).

⁴³ See Wilkins (1992) and (1994) and Casson (1994), as well as Casson (1993) for the role of culture on economic performance. For other potential reasons influencing the use and expansion of modern marketing techniques in the Americas, see also the references quoted in footnotes number 1 and 2.

⁴⁴ See Ramon-Muñoz (2009), for an analysis of the links between southern European immigration and olive oil imports in the Americas from 1875 to 1930, and Fernández (2002), for the particular case of Argentina.

Unfortunately, the existing evidence at firm level is extraordinarily fragmentary. Yet, it suggests that several exporting firms rapidly understood the potential profits derived from promoting a cultural identification between olive oil and the home country of the new emigrants. Thus, the use of brand names, symbols and label designs that contributed to evoke famous Mediterranean areas of olive oil production was far from an uncommon practice.⁴⁵ They were also used to suggest that the product arrived from the country of origin of the emigrant. To give an example, in Brazil, where the Portuguese community was extraordinarily large, both the Portuguese Chamber of Commerce and Industry in Rio de Janeiro in 1916 and the Spanish attaché in 1925 reported that olive oil which was canned, labelled and branded in Spain but was exported to Brazil feigned to be from Portugal by means of the brand-name.⁴⁶

4.2. American disadvantages in packaging, blending and storing

To sum up, the late nineteenth century southern European mass migration challenged olive oil exporting firms, which began to make a more intensive use of packaging, branding and advertising techniques in order to differentiate the product from competitors and increase market share. Now, it should be added that Southern European mass migration also caused the American market for olive oil to expand. This fact attracted Mediterranean firms to enter the market, which increased competition and, in turn, intensified the use of modern marketing techniques.⁴⁷

Mediterranean exporters were not alone in the use of modern marketing techniques, however. As the market grew, importers, wholesalers and retailers began to create their own brands of olive oil too, although the product continued to be elaborated, packaged and labelled in the Mediterranean basin by exporting firms. There are a large number of instances of this behaviour, which, in addition, covers a large number of importing countries, including Uruguay, Peru, Argentina, Brazil and the United States.⁴⁸ Other importers went a step further. As will be explained below in section 5, by the years around World War I, importers, and other food producers, had erected their own plants in the consuming countries to carry out filtering, blending, repackaging and labelling operations with olive oil imported from abroad.

Remarkable as they were, one would expect that all these latter American traders' strategies of packaging olive oil in the Americas would have extended even further during the course of the twentieth century. Importing bulk olive oil was less expensive than importing packaged olive oil, partly because transport costs were lower for bulk olive oil and partly because specific tariff duties tended to favour bulk olive oil too. In spite of this, by 1929, for example, most of the American brand-owners still preferred importing olive oil in small packages ready for final distribution and consumption rather than filtering, blending, packaging and elaborating the

⁴⁵ Tolman and Munson (1905), pp. 56-59.

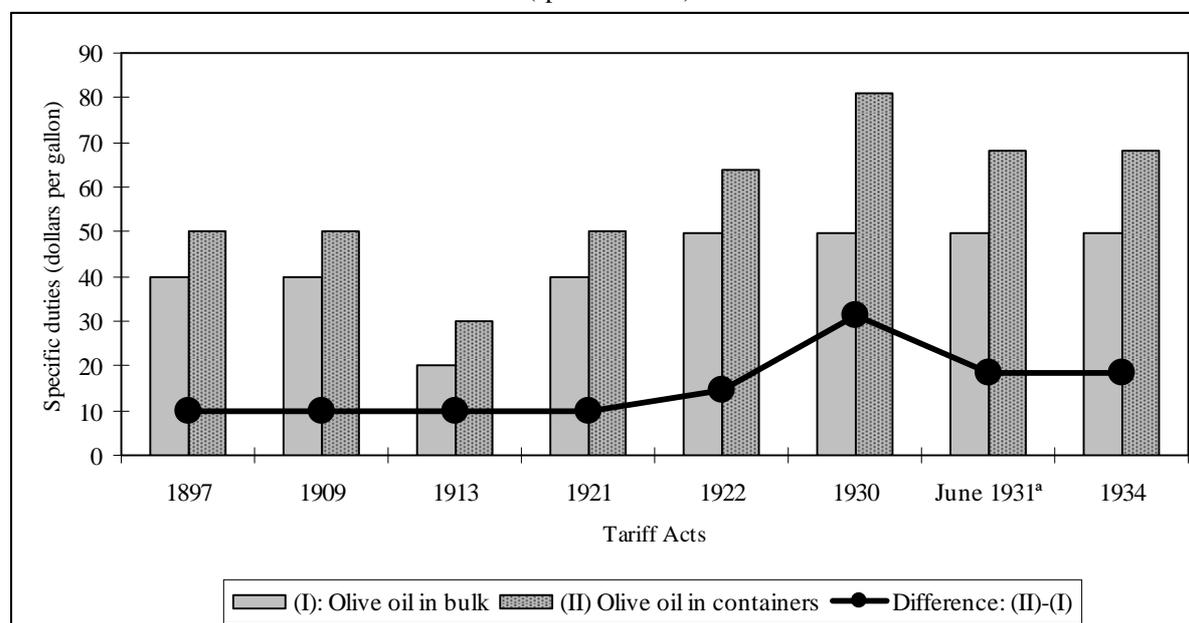
⁴⁶ Câmara Portuguesa de Comércio e Indústria do Rio de Janeiro (1916), pp. 301-302 and Consejo de Economía Nacional (1925), p. 11.

⁴⁷ For the growth of American markets and the entry process of exporting firms in these markets, see Ramon-Muñoz (2000a) and (2010b).

⁴⁸ For Uruguay, see for example, *Mercurio. Revista Comercial Ibero-Americana*, no. 167, January 1913 and *El Aceite de Oliva de España* (hereafter AOE), no. 49 (December), 1932, p. 347. For Argentina and Peru, see MAIC (1913a), pp. 186-187 and 384. For Brazil, *Hijos de J. Sabater*, a Spanish exporting firm, recognised that in the mid-1920s they were both producing and exporting seven different brands of olive oil for Brazil; two of them belonged to the firm itself but the other five were property of different Brazilian importers. Sabater was not alone in following this strategy. According to the Sabater's agent in Rio de Janeiro, this was an extended practice for many Spanish firms exporting olive oil to Brazil. Letter from Rio de Janeiro dated in 8th July 1926. For references, see Ramon-Muñoz (2010a), p. 209. For the USA, see Tolman and Munson (1905), pp. 53-59. According to an Italian consul in Argentina, once the own brand was credited "[retailers and importers] can enhance their sales and they can obtain major profits, which would be more difficult to achieve if consumers bought the same brand of olive oil from other retailers, [In addition,] "the same type and quality of olive oil [is] sold under different names". MAIC (1913), pp. 186-187. The translation is mine.

product in the consuming market, and the same can be said for most American food producers and importers dealing with olive oil.

Figure 1
U.S. tariff duties on olive oil by packages under the tariff acts of 1897 to 1934
(specific duties)

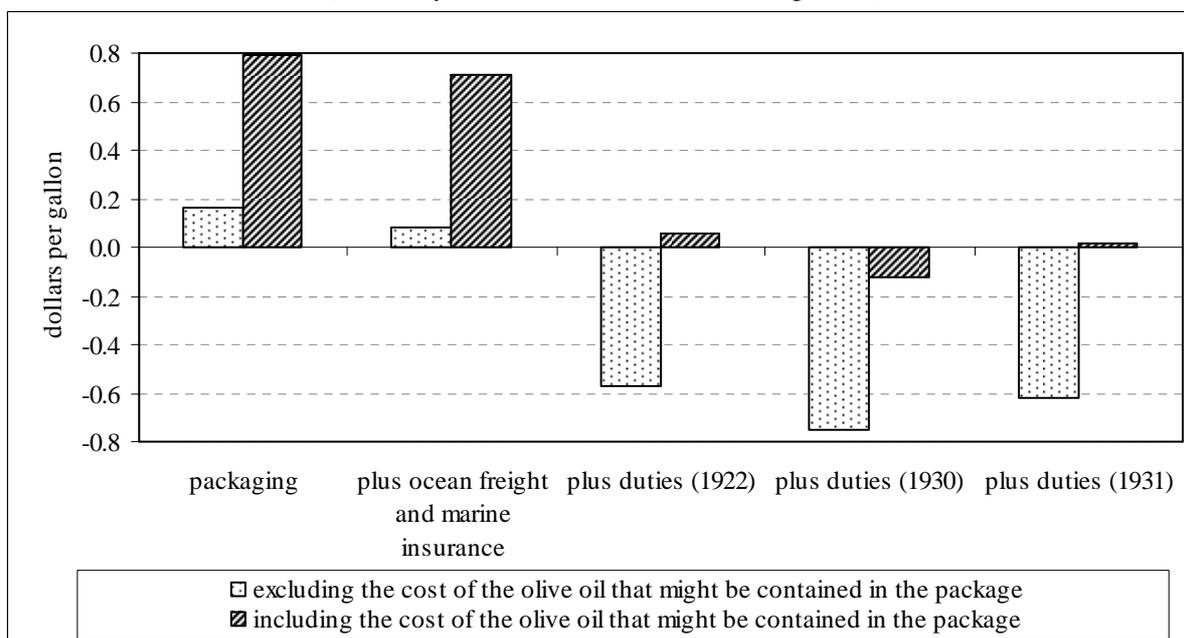


Notes and Sources: ^a 1931 corresponds to a Proclamation by the President of the United States of America decreasing rate of duty on olive oil weighing less than forty pounds with the immediate container, Washington 24th June 1931. Calculated from U.S. Tariff Commission (1931), pp. 5 and 19-20 and *The Foreign Commerce and Navigation of the United States*, various issues.

There is a simple and obvious reason that might explain why olive oil continued to be mostly traded from Europe in tins and bottles to be consumed directly in the Americas: the cost of packaging olive oil in Europe was lower than in the Americas. This is at least what the USA packagers of olive oil argued after World War I. According to them, in the course of the 1920s lower labour costs and lower costs of the materials used in the packaging of olive oil were giving European olive oil exporters the opportunity to undersell American packaged olive oil. Although perhaps correct, the statement has to be carefully considered. It was made in the hearings before the Tariff Act of 1929, where the American packagers called for an increase in the tariff duties imposed on olive oil imported in small packages. In fact, the American packaging industry already enjoyed a certain protection, as since the tariff act of 1897 olive oil imported in small packages was taxed at 10 cents per gallon more than olive oil imported in bulk. This difference was maintained in the subsequent tariff acts of 1909 to 1921 and was increased to 14.5 cents per gallon in the tariff act of 1922 (see figure 1). In spite of this, by 1929 R.U. Delapenha, representing the packagers of olive oil in the United States in packages of less than forty pounds, concluded that “*the differential at present existing is not sufficient to protect the American packer*” since packaging abroad, American duties included, was – he said - around 21 ¼ cents per gallon cheaper than packaging in the United States of America.⁴⁹

⁴⁹ U.S. Congress (1929), vol. I. By 1913, however, the representative of the Pompeian Corporation, from Baltimore M.D., argued that “*the 10 cents per gallon differential not only protects the manufacturers of packages and labels used in packaging olive oil, but gives the American packager a chance to spend a little more on packaging the olive oil under better conditions*” U.S. Senate (1913), vol. I.

Figure 2
Costs differences in packaging olive oil in the United States of America and abroad, 1928-1930
(amount by which USA costs exceeded foreign costs)



Notes and Sources: See text and footnotes.

Of course, American importers of olive oil in small packages offered a very different view. They argued that while the labour costs in the United States were certainly higher, this factor was negligible owing to the better machinery employed by the U.S. packaging industry as well as the fact that non skilled manual labour was required in packaging olive oil. As a result, costs of tins and wooden cases in the USA were slightly lower than abroad or, at the most, about the same.⁵⁰ However, if the existing duty was taken into account “*domestic [packagers would] have enjoyed for the last six years a protection superior to the real difference existing [between] the cost of packaging abroad and the United States of America [which would explain why domestically packaged] olive oil [was] being sold at 10 to 20 cents per gallon cheaper*” than foreign packaged olive oil.⁵¹

Were American importers of canned olive oil right? Fortunately, a detailed (and apparently independent) investigation carried out by the U.S. Tariff Commission for the period of 1928-1930 helps to throw some light on the issue. According to the figures provided by the Commission, the average costs of packaging in the United States exceeded the foreign costs by around 15 cents per gallon (see figure 2). This difference against the American packagers became larger if the cost of the olive oil that might be contained in the package was included in the calculations. This is so because the olive oil was imported in bulk from southern Europe and represented around 80 per cent of the total costs of the U.S. olive oil packaging industry. Of course, differences in cost between olive oil packaged in the United States and abroad begin to decrease if ocean freight and marine insurance are added to the latter.

However, the decrease in the differences only becomes significant when, in addition to ocean freight and marine insurance, U.S. tariff duties are considered. For example, according to the duties fixed in the tariff Act of 1922, the difference between olive oil packaged in the United States and abroad (including the olive oil that might be contained in the package) is

⁵⁰ U.S. Senate (1929), Schedule 1 and U.S. Congress (1929), vol. I.

⁵¹ Brief of Louis J. Scaramelli, representing the Food Merchants’ protective Association of New York City. U.S. Congress (1929), vol. I.

extraordinarily low - around 0.6 cents per gallon higher in the former than in the latter; whereas if olive oil is not included the American packaging industry has an advantage of 6 cents per gallon. To some extent, equalization of foreign costs with domestic costs of packaged olive oil seems to have been the aim of the U.S. tariff policy, at least through the interwar period. Thus, occasional cost advantages for domestic packagers derived from an excess of protection which tended to be corrected by reducing specific duties in order to equalize domestic costs with foreign costs, as was the case with the Tariff Act of 1930 and the subsequent reduction of duties in the Presidential proclamation of June 1931 (see figure 1).

Consequently, the available evidence suggests that although the cost of packaging was lower in Europe than in the Americas tariff duties tended to balance these differences, at least in the United States of America. If the cost of packaging (plus tariffs) resulted to be about the same, there is no doubt that other factors should be taken into account to explain why firms continued exporting olive oil from Europe in small packages and under brand-name instead of trading bulk olive oil to be repackaged in the Americas.

One of these advantages probably has to do with European advantages in blending and storage. In turn, they were partly related to the characteristics of the product itself, but also to the growing demand for variety that took place in the United States of America over the first third of the twentieth century.⁵² In this context, the importance of appropriate blending practices and easy access to the sources of supply became apparent. Regarding the former, expert blenders were more intensively required in order to both manufacture a homogenous product and to produce a larger number of commercial varieties of olive oil. It was precisely in the main areas of production and export trade where expert blenders could be more easily found, which is not surprising considering that expert blending was generally related to the knowledge of the product and experience in the elaboration of blends.⁵³ Of course, the location of skilled labour does not necessarily determine the location of a processing or exporting industry. In olive oil, as in many other sectors, skilled labour was a mobile factor, as well as this blending techniques could be learnt by American workers. Nevertheless, it is also true that if a great variety of different products were required, being near the source of supply eased blending operations.

The words of A. Tossi, vice-president of P. Pastene & Co, are highly illustrative in this respect.⁵⁴ According to him, olive oil:

"...varies in its characteristics from year to year, and as a uniform type is demanded by the consumer, it is necessary to blend oil from different sections in order to maintain the uniform type packed in small containers in which it is sold direct to the consumers. It was because of that fact (...) that we shifted our packing operations abroad and closed our plant in New York. With supplies available at any time and in any quantity, packing in Italy avoided the necessity of carrying tremendous stocks and the risk of running short of certain types of oil required in our blends. In this connection, it might be interesting to state that our experience of many years has taught us that it requires a minimum of three and as many as seven different types of oil to maintain our blends uniform from year to year. As we pack possibly 200 brands for customers in the United States alone, and the tastes of

⁵² The growing demand for variety might have been related to various reasons. Firstly, late nineteenth century Southern-European mass migration created remarkable differences in tastes and income in the New World and among potential consumers of olive oil. Secondly, early twentieth century brand-owning strategies increased demand for variety and caused product differentiation to rise. Thirdly, as incomes grew in the US one might expect that there was an increasing demand for variety. See also section 5 in this paper for further information on patterns of olive demand in the USA.

⁵³ U.S. Senate (1929), Schedule 1.

⁵⁴ P. Pastene and Co. was a company established in Boston in 1874. In the late 1920s, it had become one of the largest distributors of imported groceries in the United States and Canada. U.S. Congress (1929), vol. I.

these customers vary, requiring different blends of oil, the logical place for a factory is at the source of the supply, rather than at 4,000 miles distance".⁵⁵

On the eve of World War I, this firm had both an olive-oil plant and a packaging plant in Italy. With the outbreak of World War I, it brought its packaging plant to New York, partly because of the war itself and partly because of the embargos on exports placed by the Italian Government. The end of the war and the removal of embargoes provoked a new change in the marketing strategy of the firm. The managers decided to close the plant in New York and packaging operations returned to Italy. The decision was not influenced by the fact that packaging was more economical in Italy than in the United States, but because the firm had to have at its disposal large and varied supplies of olive oil in order to properly meet its varied demand. Consequently, for some American firms it might have been more useful to be (and to package) next to the sources of supply rather than close to the consumption markets.⁵⁶

4.3. *The problem of misbranding and fraud in the United States and Latin America*

Together with European potential advantages in blending and storing, there are another two additional factors that appear to be central in explaining why olive oil continued to be mostly traded from Europe in tins and bottles to be consumed directly in the Americas. One was the structure of the markets for packaged olive oil on the other side of the Atlantic, a topic that has been developed elsewhere.⁵⁷ The other factor has to do with misbranding, fraud and the development of legal systems to prevent them.⁵⁸ In the United States of America, as well as in other American countries with a large consumption of olive oil, fraud became a major concern among those involved in the olive oil business. For the particular case of the United States, the signs of this are extraordinarily abundant, beginning at the end of the nineteenth century. By this time, adulterated olive oil was being packaged inside the country and sold as pure olive oil, a practice heavily condemned by the Italian Chamber of Commerce in New York.⁵⁹

Of course, olive oil was not the only product that suffered from adulterations. Thus, to prevent adulterations and misbranding, the American authorities approved the Pure Food and Drug Act on 30th June 1906. According to this Act, blends of olive oil with other vegetable oils were allowed to be sold, but they had to be clearly labelled on the package in which they were sold. The Act also punished illegal mixtures of olive oil as well as misbranding, short sizing and other fraudulent practices. Finally, it established examination of foods and drugs offered for sale in the United States, including olive oil received from foreign countries. These examinations had to be made by the Bureau of Chemistry of the Department of Agriculture, or under the direction and supervision of this Bureau, for the purpose of determining whether such articles were adulterated or misbranded.

⁵⁵ U.S. Congress (1929), vol. I.

⁵⁶ The strategy of establishing warehouses in the largest producing areas seems to have been followed by a number of USA firms. This was, for example, the case of Musher & Co. Set up in New York in 1907, the company imported about 1,300,000 gallons of olive oil in bulk in 1919, around 14 per cent of total USA olive oil imports in bulk. As Nathan Musher, the President of the company, stated in 1921, "*Musher & Co. maintain very expensive warehouses throughout Spain and Italy, where the oil is brought in by local farmers and immediately placed in tiled tanks and kept at an even temperature, away from the light and air, which are detrimental to olive oil*" (U.S. Congress 1921, part I). Heinz (H.J.) & Company, the well-known USA food processing firm, also invested in olive oil business abroad. In the early 1930s, for example, the Spanish attaché in Texas argued that "*Spanish olive oil imports to the South of the United States are almost totally made by means of Heinz (...), who (...) has its own house in Spain*" (AOE, no. 73, November, 1934, p. 377). Nevertheless, these companies packaged the product in the USA.

⁵⁷ See Ramon-Muñoz (2010b).

⁵⁸ See, among others, Dupré (1999) and Stanziani (2007) for the question of fraud and regulation in particular products.

⁵⁹ Camera di Commercio Italiana in New York (1937), p. 160.

In spite of this, fraudulent practises in olive oil continued, especially among local (and small) packagers and dealers. In the course of the second annual meeting of the Olive oil Association of America, held in New York on 4th April 1922, the president of the Association's fraud committee submitted a report in which he called attention to the fact that the committee had unearthed a large number of fraudulent packagers and dealers. According to him, such fraudulent practices consisted of two different types. The first one was to place symbols on containers to make it appear that they contained real and pure olive oil, when in fact they only contained other cheaper vegetable oils. The second fraudulent practise was the placing of adulterated olive oil in real olive oil barrels, which in a number of cases were purchased from second-hand dealers. Seven years later, the former chief of the New York branch of the Bureau of Chemistry of the United States Department of Agriculture estimated that for the period 1924-1928 an enormous number of violations were committed by dishonest domestic packers and mixers, of which only 175 were brought to the Federal courts.⁶⁰ By 1932, Charles A. Tossi, president of the Olive Oil Association of America, had called attention to this problem. He both described recent violations against olive oil and insisted on the fact that the economic crisis was leading consumers to show a greater interest in the price of products rather than in their quality, which probably eased the action of dishonest packagers and dealers.⁶¹

By contrast, olive oil imported from producing countries, whether imported in tins or in bulk, was rarely adulterated or misbranded. This was not only because exporting firms were interested in protecting their brands in the U.S. market, but also because of the U.S. custom officers more severe controls, who from 1906 acted under the rules of the Pure Food and Drug Act. The existing evidence is conclusive in this respect, although it is true that during the course of the first third of the twentieth century the contrary was occasionally claimed.⁶²

In 1905, detailed investigations made by the Bureau of Chemistry of the U.S. Department of Agriculture concluded that the adulteration of foreign oil imported into the United States was of little importance. The Bureau's investigations showed that in the first inspection only 5 of the 61 samples obtained from the custom officers were found to contain oils other than olive oil whereas a second inspection showed that only 9 samples out of 250 contained cottonseed oil. On the other hand, oils bought on the market, bearing labels indicating a foreign origin, were found to be quite extensively adulterated with cottonseed oil. According to the Bureau of Chemistry, these adulterated oils bearing foreign labels appeared to have been labelled and adulterated after leaving the port of entry, probably being produced by domestic packagers or dealers rather than foreign exporters or producers.⁶³

⁶⁰ U.S. Senate (1929), Schedule 1.

⁶¹ Tosi (1932). As in the early 1920s, many frauds still consisted in repackaging mixtures of olive oil with other cheaper vegetable oils, which were sold in cans labelled with foreign names and symbols in an attempt to mislead the buyer. Together with this "traditional" fraud, another more simple violation was becoming common: to short fill the containers. The most sophisticated fraud, however, consisted in blending olive oil with tea oil, a mixture that was difficult to detect by traditional chemical analysis, something which only became possible in 1936 (Camera di Commercio Italiana in New York 1937: 129). Finally, misbranding practices were not uncommon either. See, for example, *Olive oil. Official organ of the olive oil industry published monthly by the Olive oil Association of America* (hereafter OAA), vol. 5, no. 3 (March), 1932, pp. 5 and 9 and SIFE, Reports no. 1,494 (1932), 1,546 (1932) and 1,547 (1932).

⁶² For example, by 1926 Italian olive oil exporters (and importers) were accused of introducing adulterated olive oil to the United States. These accusations mobilized both those involved in the business and the Italian Chamber of Commerce in New York. They probably also provoked Charles A. Tosi, president of the Olive Oil Association of America, to call this to the attention of the members of the Association by insisting on the fact that although perhaps more expensive it was convenient to receive the product, either in cans or in bulk, directly from well-known and credited exporting firms. See Camera di Commercio Italiana in New York (1937), p. 149 and SIFE, Supplement to the Report no. 199 (1927), copied from a letter sent by Ch. A. Tossi to the members of the Olive Oil Association of America in 2nd September 1927.

⁶³ Tolman and Munson (1905).

In 1929, the director of the Regulatory Work of the Food, Drug and Insecticide Administration (US Department of Agriculture), who was in charge of examining the olive oil entering the United States, arrived at similar conclusions. According to him, foreign olive oil, whether imported in tins or in bulk, rarely, if ever, arrived adulterated with foreign vegetable oils. Of all the records of the Administration for the period 1924-1928, only three of them showed olive oil adulteration at time of importation, which may be estimated to represent around 1 per cent of the total olive oil imported.⁶⁴ And by 1932, in the course of a meeting with olive oil importers, the representative of the Federal Administration made it clear that the 1931 customs statistics had recorded only 992 boxes of foreign olive oil imported in tins showing frauds consisting of misbranding and short sizing, namely around 1 per cent of total olive oil imports. Interestingly, the representative of the Federal Administration reported that these violations were generally associated with tins addressed to small, local distributors, whereas none of these violations were conferred to either well-known brands or to larger importers.⁶⁵

In this context, it does not seem mistaken to conclude that olive oil packaged, labelled and shipped from Europe and provided by the largest exporters offered consumers a certain security in terms of quality and taste, which probably could not always be said of the olive oil packaged, and labelled, in the United States. In the words of an outstanding member of the Olive Oil Association of America, in 1929 the American "*consumer knows that every shipment of olive oil imported in the containers in which it is sold, is protected by careful and stringent examinations by the Department of Agriculture. The buyer knows that he has an assurance that the oil [which] these tins contain, is pure olive oil; that the volume of the contents is as specified on the tins; that it is full in measure; that it is absolutely free from illegal mixtures; that the possibility of fraud is minimized to the point of zero*".⁶⁶

Although probably exaggerated, the statement appears to be correct in general terms. Consequently, more honest practices on the other side of the Atlantic, which were stimulated by strong custom controls in the US, might have contributed to maintain a significant trade flow consisting of olive oil packaged and labelled by European firms to be distributed and consumed directly in the United States.

Was the United States of America the only importing country in which adulteration, mislabelling or short seizing practices could be found? The answer is definitively not and many examples could be given. Perhaps most important is to note that, as in the USA, chemical analyses and controls on imported olive oil became the rule rather than the exception during the course of the first third of the twentieth century. This was so in many European countries as well as in the largest Latin American markets for olive oil. Nevertheless, in this latter case it was only during the course of World War I and, especially, from the early 1920s onwards when a more protective legislation against misbranding and illegal blending was promulgated.

The Uruguayan authorities, for example, promulgated a law in 1914 (Law of 2nd December 1914 and Regulations of 14th June 1915) regulating olive oil imports. According to article three of these Regulations, blends of olive oil with other vegetable oils were allowed, but it had to be clearly labelled on the package in which they were sold. Apart from the proper weight, cans containing blends of olive oil with other edible oils also had to specify the proportion of vegetable oils in blends.⁶⁷ In 1917, the Argentinean Ministry of Finance promulgated two laws (26th February 1917 and 16th August 1917) obligating foreign olive oil to be submitted to

⁶⁴ U.S. Senate (1929), Schedule 1.

⁶⁵ SIFE, Reports no. 1,494 (1932) and 1,495 (1932), originally published in OAA, volume V, 1932.

⁶⁶ U.S. Congress (1929), Vol. I.

⁶⁷ ME, (1919), pp. 8-9.

chemical analysis before entering the country. In addition, in 1919 the local authorities of Buenos Aires established a new Decree (26th November 1919) regulating olive oil production and trade in the city, which required a chemical analysis before the olive oil was sold in the city. It also obliged both producers and traders to label and brand the cans properly, by including the type of product, its brand-name, the name of importer and exporter, the weight of the can, the place of production as well as the kinds of oils used, if the product was blended. In connection with this, the right to include the word olive oil on the cans was reserved for pure olive oil.⁶⁸ Finally, a new Decree promulgated by the Federal authorities on 25th October 1926, though maintaining part of the former legislation on olive oil trade, allowed a controversial practice: edible vegetable oils were allowed to be sold in the domestic market without the necessity of specifying the composition of the product as well as with the possibility of using the words “Pure edible oil”. Not surprisingly, this legislation was largely criticized by both importers and exporters of olive oil.⁶⁹ Like in Argentina, the Chilean government established a new legal framework in 1918 (Law of 9th October). This time the legislation did not only improve the control of foreign olive oil by means of chemical analysis but also reserved the words “olive oil” and “edible oil” for pure olive oil.⁷⁰

Unfortunately, it is difficult to know to what extent fraud and irregular practices in olive oil trade decreased as a consequence of the promulgation and applications of all this legislation. It seems obvious, however, that they were an important step for both consumer protection and the exporting firms’ reputation, since higher controls and regulations offered a higher guarantee for the quality of the olive oil produced, labelled and traded in small tins directly from the main producing and exporting areas. This was, in fact, the conclusion of the Spanish commercial attaché in Southern America in 1925. After arguing that fraud and adulterations continued to be carried out on a large scale in Brazil, he offered a partial solution to the problem: legislation for olive oil and other foodstuffs similar to that existing in Argentina and Uruguay ought to be promulgated in that country.⁷¹

5. American patterns of olive oil demand

So far, the discussion on export marketing on the other side of the Atlantic has been aimed at answering why most the olive oil exports to the Americas mainly consisted of canned and packaged olive oil. That said, it is also true that bulk olive oil exports to the New World experienced a clear growing trend from the early twentieth century. This expansion was associated with important transformations in the American patterns of olive oil demand. Most of them took place in the United States and, at least in part, seems to have been related to the revolutionary transformation in the production and distribution of food products as well as the growth of the food processing industry described by Chandler.⁷² According to this prominent scholar, rapid and continuing growth in population and per capita income from the mid-nineteenth century, together with new forms of transportation and communication, stimulated impressive technological changes and provided American entrepreneurs with great opportunities to exploit economies of scale and scope in production and distribution. In food production,

⁶⁸ ME (1920), pp. 21-29, where a detailed review of the Argentinean legislation between 1913 and 1920 is offered.

⁶⁹ The Spanish Chamber of Commerce in Buenos Aires was particularly against this new legislation. According to this Chamber, the law was confusing since not only did it not protect olive oil against adulterations but also it showed that the Argentinean authorities were exclusively interested in protecting the interests of the national industry of vegetable oil rather than the domestic consumers. The main arguments of the Spanish Chamber of Commerce are summarised in SIFE, Reports no. 45 (1927), no. 137 (1927), no. 244 (1928), no. 605 (1929), no. 845 (1930) and Supplement to the Report, no. 1,028 (1930). An opposite view in SIFE, Supplement to the Report no. 193 (1927), Supplement to the Report no. 358 (1928) and Supplement to the Report no. 352 (1928).

⁷⁰ ME (1922), pp. 21-23.

⁷¹ Consejo de Economía Nacional (1925), pp. 10-12.

⁷² Chandler (1977) and (1990).

innovations included new processing techniques and new packaging techniques. Therefore, from the early 1880s food manufacturers began to package and to brand their products to be distributed to retailers as a part of the production process, taking over a function that had been traditionally carried out by wholesalers. The introduction of automatic-line canning technology, another revolutionary innovation for food producers, expanded the production of canned and branded products, including breakfast-cereals, meat, fish, mayonnaise, salad dressings or sauces.

The expansion of some of these industries had its consequences on olive oil trade. In the elaboration of fish-canning, mayonnaise or salad dressings, vegetable oils are required, which also benefited though modestly olive oil.⁷³ For example, by 1921 the *Pompeian Sea Food Co.* argued that the packagers of sardines and tuna fish in California used almost three-quarters of a million gallons of olive oil a year (around 2.6 thousand metric tons). Interestingly, all of this olive oil had to be imported because the olive oil produced in California contained a high percentage of free fatty acid.⁷⁴ Salad dressings were another source of demand for olive oil, although it is true that the resulting product generally consisted of blends of olive oil with other domestic vegetable oils.

At the same time, and as olive oil consumption for fish-canning or salad dressings expanded, another new and important source of demand began to emerge early in the twentieth century, namely the packaging industry. This industry demanded olive oil of different qualities and grades, including refined olive oil for packaging purposes. A share of this new demand came from processors and distributors of a large variety of food products, including, probably, the well-known H.J. Heinz Co. from Pittsburgh, a pioneer company in using automatic-canning and new marketing methods as well as one of the largest U.S. producers of canned food products.⁷⁵

If a share of this new American demand of olive oil for packaging purposes came from processors and distributors of a large variety of food products, the lion's share probably came from olive oil importers. Indeed, from the beginning of the twentieth century, and stimulated by a discriminatory specific tariff against bottled and canned olive oil imports, olive oil importers began to transform themselves into olive oil processors. In other words, they began to carry out operations such as filtering, blending, packaging and labelling, taking over functions that were being carried out by exporters in the countries of olive oil production. Prior to the opening of hostilities in August, 1914, these operations were, however, limited to a few houses that had commenced the packaging of olive oil in cans and bottles in the United States of America instead of in the countries of origin. With the outbreak of World War I, and the exceptional circumstances that the war provoked, a larger number of importers found it necessary to set up plants in the United States and to install machinery for the purposes of filtering and packaging foreign olive oil in cans and glass bottles of different sizes and shapes. These new plants were situated near the North Atlantic seaboard cities of Baltimore, Boston and Philadelphia and, above all, New York, namely near the main areas of olive oil consumption and trade.⁷⁶

⁷³ In 1931, for example, information concerning the result of operation of 27 plants packaging Maine sardine (herring) show that sardines in olive oil only accounted for 0.2 per cent of the total product value. Sardines in cottonseed oil, on the other hand, represented 45 per cent of total product value. OAA, vol. 5, no. 9 (September) 1932, p. 9.

⁷⁴ U.S. Congress (1921), part I.

⁷⁵ For those companies, which had integrated canning processes and distribution operations, packaging and selling olive oil was, of course, an opportunity to capture a share of the growing olive oil demand. Again, and following Chandler's arguments, packaging olive oil might have been also an additional opportunity to exploit economies of scale and scope in production and distribution, since integrating new product lines contributed, for example, to assuring the continuing throughput of the canning plants.

⁷⁶ U.S. Congress (1921), part I, especially the statement of R. W. Delapenha, the president of Olive Oil Importer's Association of America. U.S. Tariff Commission (1931), pp. 8 and 11.

Extraordinarily dependent on continuous supplies of foreign olive oil and a certain degree of tariff protection, the U.S. olive oil packaging industry continued operating all through the interwar period. It is true that the quantity of olive oil imported to be packaged remained relatively stagnant during the 1920s. In spite of this, by 1928/1930, and according to an estimate from the U.S. Tariff Commission, about 60 per cent of the olive oil imported into the United States to be submitted to further manipulations before reaching the final consumer was consumed by the olive oil packaging industry.⁷⁷

Table 7
An estimation of olive oil trade in the Americas by countries and main uses, 1925/1929
(five-year averages)

Selected countries	Industrial uses ^a (inedible)	Edible purposes		Subtotal	Total
		to be directly consumed at the table or in the kitchen ^b	for other uses or to be submitted to further manipulations ^c		
Panel 1: Market orientation (total imports in the selected country =100)					
Argentina	0.0	86.4	13.6	100.0	100.0
Brazil	0.1	96.0	4.0	100.0	100.0
Chile	0.0	91.1	8.9	100.0	100.0
Cuba	0.0	59.8	40.2	100.0	100.0
Mexico	0.1	85.8	14.1	99.9	100.0
Peru	0.0	83.8	16.2	100.0	100.0
USA	9.9	54.1	36.0	90.1	100.0
Uruguay	0.0	90.2	9.8	100.0	100.0
Venezuela	0.0	82.5	17.5	100.0	100.0
Subtotal ^e	3.8	73.2	23.0	96.2	100.0
Panel 2: Market share (total imports in the selected use =100)					
Argentina	0.0	45.4	22.7	40.0	38.5
Brazil	0.2	6.8	0.9	5.4	5.2
Chile	0.0	5.3	1.6	4.4	4.3
Cuba	0.0	5.4	11.6	6.9	6.7
Mexico	0.0	1.1	0.6	0.9	0.9
Peru	0.0	0.6	0.4	0.5	0.5
USA	99.7	28.1	59.4	35.6	38.0
Uruguay	0.0	6.7	2.3	5.6	5.4
Venezuela	0.0	0.7	0.5	0.6	0.6
Subtotal ^e	100.0	100.0	100.0	100.0	100.0

Notes and sources: ^a it excludes sulphur oil; ^b for salad and other cooking uses for domestic consumption, excluding re-exports; ^c it includes fish-canning, filtering, blending and packaging purposes; ^e it only includes selected countries. Ramon-Muñoz (2010a), Appendix 5.1.

The fact is that U.S. olive oil imports destined for fish-canning, salad dressing, blending purposes or packaging operations expanded enormously over the first third of the twentieth century. For example, they multiplied more than eight times between 1900/04 and 1910/14 and almost tripled between 1910/14 and 1925/29, whereas edible olive oil imports for all uses only multiplied four-fold in the former period and doubled in the latter. As a result, the share of olive oil assigned to meet these new sources of demand increased, accounting for around 40 per cent of the total U.S. edible olive oil imports in the period 1925/29.⁷⁸

This enormous growth transformed the U.S. market for olive oil, as it converted the country into an extraordinarily diversified import market, at least in terms of product uses as well as in terms

⁷⁷ U.S. Tariff Commission (1931), p. 8.

⁷⁸ This share was even larger in the late 1910s and in the 1930s, but these were exceptional periods, deeply marked by the outbreak of World War I and the 1929 economic crisis.

of product quality too. For example, by 1929 olive oil was in demand for fish-canning, salad dressing or packaging uses. It was also demanded to be directly distributed and consumed as a salad oil and for other cooking purposes. Medical and therapeutic applications were another source of demand, which, in addition, seems to have increased during the course of the twentieth century in parallel with the increasing research by food and biochemists. Finally, olive oil was still imported on a substantial scale for technical applications.⁷⁹ Another consequence of this growing new demand was a modification in the patterns of export marketing in the United States: for fish-canning or salad dressings the product was obviously traded in bulk, and the same occurred when the product was demanded by importers for filtering, blending and packaging operations.

Table 8
An estimation of olive oil imports in the Americas by uses, 1925/1929

Uses	relative to American uses ^a (%)	relative to World uses ^b (%)
1. For oiling textiles, soap making, lighting or other industrial uses ^c	3.8	28.0
2. For edible purposes	96.2	49.0
2.1. To be consumed by the fish-canning industry	3.1	36.4
2.2. To be refined, blended, packaged in tins or bottles and, finally, re-exported abroad	0.0	0.0
2.3. To be consumed at the table and in the kitchen as a salad oil and for other culinary uses	93.1	76.7
a) arriving to the final consumer after being submitted to manipulations in the importing markets	19.9	4.1
b) distributed and sold directly to the final consumer once imported	73.2	90.8
Total sample	100.0	47.6

Notes and Sources: ^a only includes selected countries; ^b only includes American and European selected importing countries; ^c for the Americas excludes sulphur oil. Ramon-Muñoz (2010a), Appendix 5.1.

Although the United States of America was an extreme case, olive oil demand for purposes other than to be directly consumed at the table and in the kitchen as a salad oil and for other cooking purposes emerged in other American countries (see table 7). Argentina is the country in which this process can best be documented. Consular reports and other qualitative information show that from the years around the turn of twentieth century olive oil was also imported into Buenos Aires, the capital of the country, to be blended with groundnut oil of domestic production and also with cottonseed oil of foreign origin.⁸⁰ Packaged with cans provided by the new mechanical canning factories of the city, the product was finally sold by means of wholesalers and retailers to those consumers that could not afford to pay for pure olive oil.⁸¹ Although detailed figures are lacking, contemporaries estimated that in the years around World War I the so-called National Industry of Vegetable Oils consumed roughly 4,000 metric tons of olive oil for blending purposes.⁸² For the late 1920s, a similar figure can be estimated, which would indicate a stagnation of blending operations in Argentina after the end of World War I.

⁷⁹ See U.S. Congress (1921) and (1929), vols. I. and XV and U.S. Senate (1929), Schedule 16.

⁸⁰ See MAIC (1900), p. 81 and MAIC (1913a), p. 190. In addition, a report issued by the Ministry of Agriculture estimated that by 1913/1914 the domestic production of vegetable oils for edible purposes was 8,090 metric tonnes whereas the imports of cottonseed oil amounted at 5,960 metric tons. See García Mata (1935), pp. 7-9 and 17-18.

⁸¹ MAIC (1913a), p. 190.

⁸² Argentine studies have estimated that by 1913/1914 the domestic production of vegetable oils for edible purposes was 8,090 metric tonnes whereas the imports of cottonseed oil amounted to 5,960 metric tonnes. On the other hand, Spanish reports estimated that by the years around 1914 Argentina imported around 4,000 metric tonnes of olive oil in large packages. If this calculation is true, this would mean that around 15 per cent of the total imports of olive oil in Argentina consisted in olive oil for blending purposes. See García Mata (1935), pp. 7-9 and 17-18 and Ministerio de Estado (hereafter ME) (1920a), pp. 8-14.

In spite of all these transformations, the fact is that by the late 1920s almost $\frac{3}{4}$ of the olive oil still arrived to the American markets to be directly distributed and consumed for table and kitchen uses as a salad oil and for other cooking purposes (see table 8). The product was traded from Mediterranean Europe in tins and, to a lesser extent, bottles, which, of course, differed in size but also in the quality, colour, odour, taste and composition of the olive oil they contained, reflecting both demand variety, consumers' preferences and, last, but not least, consumers' income.

6. Conclusions

Between 1870 and 1938, modern marketing techniques expanded rapidly in international markets for olive oil, especially in terms of packaging, branding and advertising. This confirms what other studies have shown: during the nineteenth and early twentieth centuries modern marketing spread over a wide variety of consumer-good industries. In the case of olive oil, this was especially true among those firms exporting olive oil to the Americas. Indeed, this paper has provided quantitative estimates and qualitative information showing that export marketing clearly differed on both sides of the Atlantic. Extensively used in American markets, packaging, branding and advertising techniques appear instead to have been modestly applied by exporters involved in trading olive oil towards the Old Continent. The fact that in Europe olive oil was mainly imported as a raw material allows explaining part of this different behaviour.

Nevertheless, a better understanding of the patterns of international marketing of olive oil prior to World War II involves taking into account a large number of factors. Country-specific patterns of consumption and demand certainly became primary forces in determining patterns of foreign marketing, especially in terms of packaging, branding and advertising. But apart from this, the distribution systems in consuming markets played its role as well, while tariff policy in the importing markets could also discriminate against packaged olive oil, thereby hindering the export trade of packaged and brand-name olive oil. Thus, in Europe, when importers increased control over production and trade activities, the importance of packaging, and, especially, branding and advertising, in export trade tended to weaken. The same was true when custom duties for the olive oil imported in tins or bottles exceeded those for the olive oil imported in bulk. It was precisely in the Old Continent where these tariff differences against packaged olive oil were higher. This is not all. A major globalisation force also influenced international marketing. Indeed, late nineteenth-century southern-European mass migration opened up a new, distant and growing market in the New World that had to be supplied. Branding, together with packaging, and advertising, was a means used by Mediterranean firms for entering and competing in the markets on the other side of the Atlantic. Facilities in blending, warehousing or storage in the olive oil producing countries reinforced the competitive advantages of those firms packaging and labelling in Europe. Similarly, the development of brand (and consumers') protection legislation, as well as strong custom controls, in some countries of the New World was far from a negligible factor. It contributed to maintain a significant trade flow consisting of olive oil packaged and labelled by European firms to be distributed and consumed directly on the other side of the Atlantic.

Unfortunately, this paper has failed to provide a precise hierarchy for the factors just mentioned above, discriminating among them in terms of their relative impact on marketing. This issue awaits further research. In spite of this, the preceding pages might have contributed to a better understanding of the evolution and characteristics of the export marketing of food products. They have also attempted to throw new light on the emergence of modern marketing, showing the complexity of the process.

References

- [AOE] *Aceite de Oliva de España, El. Organo de la Federación de Exportadores de Aceite de Oliva de España*. Madrid, 1929-1936, various issues.
- [BCIC] *Boletín del Centro de Información Comercial* [Ministerio de Estado]. Madrid, 1898-1935, various issues.
- Câmara Portuguesa de Comércio e Indústria do Rio de Janeiro (1916), *Inquérito para a expansão do comércio português no Brasil*. Porto: Imprensa Portuguesa.
- Camera di Commercio Italiana in New York (1937), *Nel cinquantenario della Camera di Commercio Italiana in New York*. New York: Camera di Commercio Italiana.
- Camera di Commercio Italo-Orientale (1927), "La produzione ed il consumo degli olii nei paesi orientali", in Società Nazionale degli Olivicoltori, *Atti del IX Congresso Nazionale di Olivicoltura. Bari, 19-22 d'ottobre 1925*. Spoleto: Arti Grafiche Pareto & Petrelli, pp. 183-257.
- Casson, Mark (1993), "Cultural Determinants of Economic Performance", *Journal of Comparative Economics*, vol. 17, no. 2 (June), pp. 418-442.
- Casson, Mark (1994), "Brands. Economic Ideology and Consumer Society", in Geoffrey Jones and Nicholas Morgan (eds.), *Adding value: brands and marketing in food and drink*. London, pp. 41-58.
- Chandler, Alfred D. Jr. (1977), *The Visible Hand. The Managerial Revolution in American Business*. Cambridge, Mass: Harvard University Press.
- (1990), *Scale and Scope. The Dynamics of Industrial Capitalism*. Cambridge, Mass. and London: Harvard University Press.
- Church, Roy (1999), "New perspectives on the history of products, firms, marketing, and consumers in Britain and the United States since the mid-nineteenth century", *Economic History Review*, vol. 52, no. 3, pp. 405-435.
- (2000), "Advertising consumer goods in nineteenth-century Britain: reinterpretations", *Economic History Review*, vol. 53, no. 4 (August), pp. 621-645.
- and Andrew Godley (2003), "The Emergence of Modern Marketing: International Dimension", *Business History*, vol. 45, no. 1 (January), pp. 1-5.
- Duguid, Paul (2003), "Developing the brand: the case of alcohol, 1800-1880", *Enterprise and Society*, vol. 4, no. 3 (September), pp. 488-500.
- (2009), "French Connections: The International Propagation of Trademarks in the Nineteenth Century", *Enterprise and Society*, vol. 10, no. 1 (March), pp. 3-37.
- Teresa da Silva Lopes, and John Mercer (2010), "Reading Registrations: An Overview of 100 Years of Trade Mark Registrations in France, the United Kingdom, and the United States", in Teresa Da Silva Lopes and Paul Duguid (eds.), *Trademarks, Brands and Competitiveness*. London: Routledge, pp. 9-30.
- Consejo de Economía Nacional. Sección de Información Comercial. (1925), *El aceite de oliva en el mercado del Brasil. Por Emilio Boix*. Madrid: Imprenta del Ministerio de Estado.
- Dupré, Ruth (1999), "'If it's yellow, it must be butter': Margarine regulation in North America since 1886", *Journal of Economic History*, vol. 59, no. 2 (June), pp. 353-371.
- Fernández, Alejandro E. (2004), *Un "mercado étnico" en el plata. Emigración y exportaciones españolas a la Argentina, 1880-1935*. Madrid: Consejo Superior de Investigaciones Científicas.
- Fullerton, Ronald A. (1988), "How Modern is Modern Marketing? Marketing's Evolution and the Myth of the 'Production Era'", *Journal of Marketing*, vol. 52, pp. 108-125.
- García Mata, Carlos (1935), *Estudio Económico de la Producción y Consumo de Aceites Comestibles en la Argentina*. Buenos Aires: Ministerio de Agricultura de la Nación.
- Gervaso, Ottavio (1919), *Industria olearia (oli commestibili). Produzione, commercio, regime doganale*. Roma: Tipografia Nazionale Bertero.
- [MAIC] Istituto Nazionale per l'Esportazione (1927), *La produzione e il commercio mondiali dell'olio di oliva*. Roma: Società Anonima Tipografica "Castaldi".
- Kaldor, Nicholas (1950), "The Economic Aspects of Advertising", *Review of Economic Studies*, n. 18, p. 1-27.
- Lamarca, Lisinio Andreu (1922), *El comercio de aceites en España*, Espasa-Calpe, Madrid.

- Lopes, Teresa da Silva (2007), *Global brands: The evolution of multinationals in alcoholic beverages*. New York: Cambridge University Press.
- and Paul Duguid (eds.) (2010), *Trademarks, Brands and Competitiveness*. London: Routledge.
- and Mark Casson (2007), “Entrepreneurship and the development of global brands”, *Business History Review*, vol. 81, no. 4, pp. 651-680.
- and Mark Casson (2012), “Imitation, brand protection and globalization of British business”, *Business History Review*, vol. 86, no. 2, pp. 287-310.
- [ME] Ministerio de Estado (1899), *Aceite de oliva (primera parte)*. Madrid: Imprenta de la Viuda de M. Minuesa de los Rios.
- (1919), *Estudio comercial sobre la República Oriental del Uruguay. Por Emilio Boix*. Madrid: Imprenta del Ministerio de Estado.
- (1920), *Los aceites en la República Argentina. Por Emilio Boix*. Madrid: Imprenta del Ministerio de Estado.
- (1922), *El aceite español en Chile. Por Cayetano Rosich*. Madrid: Imprenta del Ministerio de Estado.
- (1932), *Cuadro de derechos arancelarios que satisface en la actualidad el aceite de oliva español a su importación (...)*. Madrid. Mimeo.
- Manufactures Bureau (1908), “Olive oil culture [in Tunis Australia and Algeria]”, *Monthly Consular and Trade Reports*, n. 329, p. 70-73.
- Mercurio. Revista Comercial Ibero-Americana* (Barcelona, 1913), various issues.
- [MAIC] Ministero di Agricoltura, Industria e Commercio (c. 1890), *Il Commercio degli Oli d'Oлива all'Estero*. [Roma]: [Ministero di Agricoltura, Industria e Commercio].
- (1900), *Il Commercio degli oli d'oliva italiani in America e nel Levante*. Roma: Tipografia Nazionale di G. Bertero e C.
- (1907), *Gli imballaggi più in uso su alcuni mercati esteri*. Roma: Tipografia Nazionale di G. Bertero e C.
- (1912), *Il commercio dell'olio d'oliva all'estero. Parte I*. Roma: Tipografia Nazionale di G. Bertero e C.
- (1913), *Il commercio dell'olio d'oliva all'estero. Parte II*. Roma: Tipografia Nazionale di G. Bertero e C.
- Nelson, P. (1970), “Information and Consumer Behavior”, *Journal of Political Economy*, n. 82, p. 729-754.
- (1974), “Advertising as Information”, *Journal of Political Economy*, n. 78, p. 311-329.
- Oficina del Aceite (1933a), “Trabajos del Laboratorio de Investigación de la Industria Conservera Noruega, referentes al aceite de oliva. Informe facilitado por la Oficina del aceite”, *El Aceite de Oliva de España*, vol. V, no. 57 (August), pp. 263-265.
- (1933b), “El aceite de oliva español en la conservería. Informe facilitado por la Oficina del aceite”, *El Aceite de Oliva de España*, vol. V, no. 59 (October), pp. 340-341.
- [OAA] *Olive Oil. Official Organ of the Olive oil Industry published monthly by the Olive oil Association of America/Olive Oil and Imported Foods. Official organ of the Olive Oil Association of America* (New York, 1929-1935), various issues.
- Penha Garcia, José (1936), *O problema do azeite*. Lisboa: Serviço Editorial da Repartição de Estudos, Informação e Propaganda.
- Pope, Daniel (1983), *The making of modern advertising*. New York: Basic Books, Inc. Publishers.
- Ramon-Muñoz, Ramon (2000a), “Specialization in the international market for olive oil before World War II”, in Sevkert Pamuk & Jeffrey G. Williamson (editors): *The Mediterranean Response to Globalization before 1950*. London and New York: Routledge, pp. 159-198.
- (2000b), “La exportación española de aceite de oliva antes de la Guerra Civil: empresas, mercados y estrategias comerciales”, *Revista de Historia Industrial*, no. 17, p. 97-151.
- (2009), “Migration and trade: the case of southern European immigration and olive oil imports in the Americas (1875-1930)”. Paper presented at the 8th *Conference of the European Historical Economics Society (EHES)*, Graduate Institute of International and Development Studies, Geneva, September 4-5, 2009.
- (2010a), “Globalisation and the international markets for Mediterranean export commodities: the case of olive oil, 1850-1938”, Doctoral Thesis, European University Institute, Florence.

- (2010b), “Product differentiation and entry barriers: Mediterranean export firms in the American markets for olive oil prior to World War II”, *Business History*, vol. 52, no. 3 (June), pp. 390–416.
- [ROL] *Revue Oléicole, La* (Nice, 1906-1938), various issues..
- Ricchioni, Vincenzo (1938), *L'olivicultura meridionale e l'opera di Pietro Ravanas*. Bari: Alfredo Cressati Editore-Tipografo.
- Rigobon, Pietro (1894), *Sul commercio degli oli da tavola. Monografia da pratica commerciale*. Venezia: Stab. Tipo-Litografico G. Draghi.
- Sáiz, J. Patricio and Paloma Fernández (2009), “Intangible assets and competitiveness in Spain: an approach based on trademark registration data in Catalonia (1850-1946)”. Working Papers in Economic History. Universidad Autónoma de Madrid, no. 2009/01.
- [SIFE] *Servicio Informativo de la Federación de Exportadores de Aceite de Oliva de España*. Madrid, Reports and Supplements to the Reports for the years 1927-1935, various issues.
- Stanziani, Alessandro (2007), “Negotiating Innovation in a Market Economy: Foodstuffs and Beverages Adulteration in Nineteenth-Century France”, *Enterprise and Society*, vol. 8, no. 2 (June), pp. 375-412.
- Tedlow, Richard S. (1990), *New and Improved: The Story of Mass Marketing in America*. New York: Basic Books.
- (1993) “The fourth phases of marketing: Marketing history and the business world today”, in Tedlow, Richard S. and Jones, Geoffrey (eds.) (1993), *The Rise and fall of mass marketing*. London and New York: Routledge, pp. 8-35.
- Tedlow, Richard S. and Jones, Geoffrey (eds.) (1993), *The Rise and fall of mass marketing*. London and New York: Routledge.
- Tolman, L.M and Munson, L.S. (1905), “Olive oil and its substitutes”, *Bureau of Chemistry Bulletin*, no. 77.
- Tosi, Charles A. (1932), “Protect Sales of Pure Olive oil”, *Olive oil and imported foods. Official organ of the Olive oil Association of America*, vol. V, no. 8 (August), pp. 1-3.
- U.S. Congress (1921), *Tariff Information, 1921. Hearings before the Committee on Ways and Means*. Washington: Government Printing Office, several volumes.
- (1929), *Hearings before the Committee on Ways and Means. Seventieth Congress. Second Session*. Washington: Government Printing Office, several volumes.
- U.S. Senate (1913), *Briefs and Statements filed with the Committee on Finance. Sixty-Third Congress*. Washington: Government Printing Office, several volumes.
- U.S. Senate (1929), *Hearings before a Subcommittee of the Committee of Finance. Seventy-first Congress*. Washington: Government Printing Office, several volumes.
- U.S. Senate (1929), *Hearings before the Committee on Finance. Seventy-first Congress*. Washington: Government Printing Office, several volumes.
- U.S. Tariff Commission (1931), *Report to the President on Olive Oil*. Washington: Government Printing Office.
- Wilkins, Mira (1992), “The neglected intangible asset: the influence of the trade mark on the rise of the modern corporation”, *Business History*, vol. 34, no. 1 (January), pp. 66-99.
- (1994), “When and why brand names in food and drink”, in Geoffrey Jones and Nicholas Morgan (eds.), *Adding value: brands and marketing in food and drink*. London, pp. 15-40.
- Zunino, G. (1939), *Il mercato italiano degli olii d'oliva*. Milano: Dott. A. Giuffrè, editore.